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## ORIGINAL ARTICLES.

### *PROGNOSIS IN CHRONIC VALVULAR AFFECTIONS OF THE HEART.*

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THE old, constantly recurring question, What is the prognosis in chronic valvular disease of the heart? was brought freshly to my mind by happening to have, at the time your secretary asked me to prepare a paper for this society, several cases under observation which illustrated well some of the varying conditions upon which a prognosis must be based.

While preparing this paper the records of 250 cases observed in my private practice have been studied and the statistics quoted have been obtained from this source.

Most laymen anticipate sudden death when they learn that they have heart disease. Such was the expectation of physicians in the first part of this century. It is now known that sudden death from chronic valvular disease of the heart is the exception, not the rule. It is to be looked for only in cases of aortic regurgitation. According to Broadbent's statistics death occurs suddenly in about one-quarter of these cases. One sudden death also occurred in eleven of his cases of aortic stenosis. According to other observers it is very rare in the lesion of stenosis and is almost unknown in mitral lesions.

By sudden death is meant death instantly, without apparent aggravation of symptoms, or within an hour or two after the fatal symptoms manifest themselves. When angina pectoris complicates aortic regurgitation the danger of sudden loss of life is much increased. If the valvular lesion develops in one who has general arteriofibrosis a sudden demise is much more probable than if the lesion has been produced by rheumatism or an infectious disease. In other words, sudden death in these cases is not due as much to the valvular lesion as to the very frequent coincident pathological state of the coronary arteries or coronary circulation.

When a valvular lesion actually exists perfect recovery is possible. Anatomical recovery is rare, in a sense is impossible, but physiological recovery is

not uncommon. If a murmur is constantly heard in one of the valve areas on the chest an anatomical defect surely exists, although the heart is not demonstrably changed in size, performs its functions perfectly and the general condition of the patient is one of health. If a murmur which has been persistent for weeks and has been associated with hypertrophy of the heart disappears, and the hypertrophy gradually lessens, the heart can be said to have recovered both physiologically and anatomically. Such apparent anatomical recovery is usually due to a slow stretching of one valve-curtain to compensate for the slight defect in another. It very rarely happens, if it ever does, that the chronic thickening, roughening, or contraction of a diseased valve disappears entirely. Therefore, even when clinical evidences point to an anatomical recovery, it cannot be said to be perfect.

My own experience with cases of apparent anatomical recovery makes me skeptical of its completeness and permanence. I have observed it twice in cases of mitral regurgitation of rheumatic origin. These patients were under observation for several years and it was found that whenever the heart's rate was increased from transient and moderate fever or violent work, the murmur would temporarily reappear. A third case, now under observation, came to me with broken compensation and mitral regurgitation of moderate extent. As compensation has improved, the murmur has grown fainter. When the patient was last examined it was inaudible except when arterial pressure was increased by raising his arms or causing him to make hurried movements.

Apparent anatomical recovery only occurs in valvular insufficiency. It has been observed both in aortic and mitral affections. That this must be so becomes apparent when the nature of the lesions producing stenosis is recalled. A narrowed orifice does not stretch and cannot be compensated for. If stenosis is due in part to protruding vegetations, these may break off and thereby lessen the degree of stenosis, providing they do not then cause fatal embolism. Moreover, stenosis is apt to be a progressive lesion.

Germain See is quoted as declaring he had never seen aortic lesions perfectly recovered from. Mitral insufficiency he believed incurable, but mitral stenosis, even when it was accompanied by persisting dyspnea and edema, he had seen improve and ulti-

<sup>1</sup> Read at the sixteenth annual meeting of the American Climatological Association, held at New York, May 9, 10, and 11, 1899.

mately physiological recovery become perfect. As regards aortic lesions my experience accords with this statement. I do not now recall a case of aortic disease in which rapid beating of the heart or dyspnea on exertion or other evidence of lack of compensation did not exist. But I have seen most perfect compensation in both mitral lesions.

The chance of moderate, one cannot say of average, longevity is good in chronic valvular disease providing compensation is perfect. There are, however, certain symptoms and conditions which make it possible to predict the relative duration of compensation. It is generally said that if the lesion is one of mitral insufficiency the chances of longevity are greatest; and are relatively less for the other valvular lesions in the following order: Mitral stenosis, aortic stenosis, aortic insufficiency. Walsh and others reverse the order of mitral and aortic stenosis.

Of thirty fatal cases of which I have records the average age at death was fifty years for mitral stenosis, forty for mitral insufficiency, and thirty-six for both aortic stenosis and insufficiency.

Stillman<sup>1</sup> says the percentage of deaths from heart disease among 5000 insured persons is 1.84 between the eighteenth and twenty-ninth years, 3.97 between the thirtieth and thirty-ninth, 5.1 between the fortieth and forty-ninth, 8.9 between the fiftieth and fifty-ninth, 13.3 between the sixtieth and sixty-ninth, and 12.6 between the seventieth and seventy-ninth years. The progressive increase in mortality is marked and runs almost parallel with the mortality from urinary diseases and apoplexy given in the same tables.

Of those of my own cases of which the duration of compensation could be determined with reasonable accuracy, it was found that in mitral insufficiency it averaged 5.1 years, in mitral stenosis 11.5 years, in aortic stenosis 7 years, and aortic insufficiency to 2.3 years. The range of duration in 31 cases of mitral insufficiency was from three months to seventeen years. Seven patients lived with good compensation one year, 5 two years, 4 three years, 3 six years, 4 ten years. In mitral stenosis the range was from six months to twenty years; 3 patients lived ten years with good compensation. In aortic stenosis the range was from two years to twenty, and in aortic insufficiency from one to four. From these statistics it appears that the chances of prolonged compensation and of longevity are greatest in mitral stenosis.

The next factor which must influence prognosis in these cases is the extent of the lesion. This can be imperfectly estimated. When a murmur is systolic and the first sound of the heart is also recog-

nizable, the valves are able to do better work than if only a murmur is audible. If in mitral insufficiency the first sound is prolonged into a murmur, it is evident that at first the valves are nearly or quite closed, but are forced asunder later when the intra-ventricular pressure is highest. Whenever a murmur only is audible in a given valve area and the other cardiac sound is inaudible, the lesion is most extensive. A loud and widely diffused murmur indicates strength in the heart muscle. On the other hand, a low murmur need not indicate weakness. It sometimes means that the lesion is not extensive. A long murmur usually signifies a comparatively trivial lesion, or one just formed. When either of the heart sounds has been accentuated, and the intensification of sound lessens, a loss of muscular strength has occurred.

Another factor to influence prognosis is the stationary or progressive character of the lesion. Congenital lesions are stationary. Those produced by endocarditis resulting from measles, scarlet fever, and other eruptive diseases are stationary. Chorea without marked rheumatic symptoms produces comparatively favorable cardiac lesions. Rheumatism is so apt to recur, and, almost without fail, to aggravate cardiac lesions at each recurrence, that chronic valvular disease of rheumatic origin must commonly be regarded as intermittently progressive. Lesions which develop as a part of degenerations such as arteriosclerosis and atheroma of the aorta are progressive ones, and make prognosis least favorable.

Since the degenerative lesions develop only after middle life, the age of a patient is a partial guide as to his probable longevity. Although the valvular defects just described as stationary are so, a cardiac disease growing out of mitral stenosis, even in childhood produced by an eruptive fever or mild chorea is likely to be progressive, for while the child grows the left ventricle, aorta, and arteries generally do not enlarge as they should, and sooner or later by their relative small size become an additional impediment to the circulation. The right ventricle is then unable to maintain compensation.

It is interesting here to observe the time of inception of the various valve lesions. Of sixty cases of which the time of inception could be determined, forty-nine began before the fortieth year in mitral insufficiency; in mitral stenosis the ratio of those beginning before the fortieth year to those beginning later was as ten to two; in aortic stenosis they were equally divided by the fortieth year; in aortic insufficiency, on the other hand, the ratio of those beginning before the fortieth year to those after were as two to seven. The greater age at which aortic maladies have their inception is also well

<sup>1</sup>C. F. Stillman, "The Life Insurance Examiner," page 30.

shown by the fact that in these same cases mitral insufficiency was observed to originate from the third to the sixty-ninth year, mitral stenosis from the sixth to the sixty-seventh year, aortic stenosis from the twelfth to the sixty-second, and aortic insufficiency from the twentieth to the seventieth.

A fourth factor which will modify prognosis in cases with good compensation is the amount of hypertrophy that exists. When compensation is imperfect, without demonstrable hypertrophy, or only trifling hypertrophy, the chance of longevity is comparatively good, for we can hope that compensating hypertrophy will develop. If hypertrophy must be great in order to maintain compensation trivial changes will break it.

The state of general metabolism is a good guide as to the endurance and longevity of the heart. If a patient's muscles are firm, his blood rich, and his weight maintained the possibility of prolonged compensation is good. Whenever considerable losses or gains in weight occur, either rapidly or progressively, the danger of cardiac weakness increases. An approach to obesity is almost sure to break compensation. A considerable loss of flesh is usually associated with general malnutrition. Cardiac weakness is unavoidable under these circumstances.

The habits of a patient may increase the chances of breaking compensation. If to maintain himself or family violent physical exertion must be made, or moderate exertion continuously over many hours, cardiac exhaustion must be looked for soon. Glaring exceptions to this rule can be pointed out, but it is nevertheless a general statement that can be maintained. If one's mode of life disposes to exposure, to wet and cold, the danger of complications, such as bronchitis, pneumonia, nephritis, and rheumatism is great. These maladies are often the cause of a break in compensation, and if they recur several times are sure to cause it. The frequent or constant use of unwholesome or indigestible foods cause, digestive disorders which will increase blood pressure and the heart's work. Alcoholics are liable to provoke gastritis and consequent indigestion and higher arterial tension. They are also a cause of degeneration of the heart, and when freely used tend to produce cardiac dilatation.

Chronic valvular lesions which are not progressive, produced in early adult life, are least dangerous. As they originate nearer either extreme of life they lessen the chances of longevity.

It is impossible to estimate in weeks or months or years the length of life of individuals who suffer from any particular form of valvular heart disease. It is only possible to enumerate the number of favorable and unfavorable factors in a given case of disease,

and from them to estimate the chances of prolonged life. Broadbent has said that those suffering from aortic disease lived on the average four years after they were first admitted to the hospital for the cardiac trouble. This must mean four years after compensation was lost, if it ever existed.

Of 103 of my cases of which the duration of broken compensation could be determined (I do not mean the entire duration, for many of the patients were not under observation up to the time of their death), it appears that in mitral insufficiency the average duration of broken compensation is at least 2.6 years, with a range of from six weeks to seventeen years; in mitral stenosis the average is 3.6 years, with a range of from six months to eleven years; in aortic stenosis the average is 3.8 years, with a range from three months to twenty years; and in aortic insufficiency the average is 2.75 years, with a range of from six months to seven years. This shows that after compensation is broken those having stenosis of the mitral or aortic valves have a greater average duration of life than those having insufficiency.

Cases in which compensation is broken can be placed in three groups according as compensation is imperfect, lost and characterized by edema, or more than lost and complicated by passive congestion of the liver or kidneys, edema of pleura, pericardium or lungs, or by deep anemia. Individuals in the first class may average a life of three to four years, those of the second class of six to eighteen months, and those of the third some weeks.

When compensation is broken a quick pulse and more or less dyspnea, on exertion, coexists. Often coughing occurs also, and sometimes edema. But of these symptoms dyspnea, on exertion, is oftenest the first to attract the patient's attention. Of 105 of my patients, 62 developed dyspnea as the first notable evidence of broken compensation, 33 a quickened heart's action, 6 edema, and 4 cough. The contrast between the first symptoms of broken compensation observed by patients with mitral and aortic lesions is shown by these ratios. In mitral lesions dyspnea was first observed three times oftener than rapid beating of the heart. In aortic stenosis a quick heart-beat was noticed 4.5 times oftener than dyspnea, and in aortic insufficiency it was uniformly the first symptom of broken compensation.

In all cases of ruptured compensation dilatation of the ventricles is the rule. Dilatation is dangerous in proportion as it exceeds hypertrophy rather than directly as the ventricles are enlarged.

The danger which dilatation of the heart causes is much greater when it is chronic than when it is acute. Indeed, the latter is commonly recovered from.



The ability of a dilated and hypertrophied heart to do its work is best gaged by the fulness and strength of the radial pulse, or by the degree of persistent dyspnea which may exist.

Very considerable passive congestion of the liver and kidneys indicates a permanent loss of compensation. It is true that we are often able to restore these organs to a natural size, and even to do so several times, but we cannot produce again, cardiac compensation.

When compensation is lost deep anemia, even if dropsy is not considerable, or the heart greatly dilated, makes prognosis most unfavorable, for necessarily it means that the heart as well as all other tissues is imperfectly nourished and, therefore, that exhaustion is imminent. But anemia, complicating chronic valvular disease, can be cured before compensation is lost. It may be lessened or temporarily cured when the heart first shows signs of permanent weariness, but it can rarely be much changed when cardiac exhaustion is established.

After compensation is broken the patients usually are watchful of their health and seek and heed advice. They modify their habits as far as possible to meet the requirements of their malady. Habits, therefore, at this stage of the disease's progress are of less importance than disposition. The heedless and headstrong patient is sure to be indiscreet, and the ignorant one will often unwittingly work when he should not, or discontinue treatment when it is doing him most good.

The habitual use of tobacco by those having heart disease is detrimental. If used freely it hastens and increases cardiac dilatation and degeneration. If used in moderate quantities its ill effects are usually evident. On general principles it may be accepted as axiomatic that tobacco, in cases of heart disease, is a direct cardiac poison.

In all forms of chronic valvular diseases chronic indigestion and constipation are a menace, on the one hand, to the duration of compensation; on the other, to the remaining strength of an exhausted heart. They increase arterial tension, and therefore the work which the heart has to do. These conditions should be promptly corrected, or at least mitigated.

Chronic valvular diseases are said to be commoner in women than men, but less rapidly fatal in them. Pregnancy and childbirth increase very greatly a woman's danger when the valves of her heart are diseased. I presume we all can recall mothers who have borne and reared families although anatomical defects existed in the valves of their hearts. But after compensation is weakened child-bearing is a grave complication. I have never seen a case in

which it did not shorten life, and it has been my misfortune to see several in which it caused death immediately or rapidly.

Rupture of a valve produces an acute rather than a chronic valvular lesion, and is not properly included under the title at the head of this paper. This lesion causes immediate loss of compensation, and death follows usually in a few weeks, and sometimes in a few days.

In 139 of my cases no cause could be discovered for the valvular lesions. Rheumatism was the undoubted cause in 54 cases, chorea in 5, atheroma in 15, grip in 4, pneumonia in 3, scarlet fever was a possible cause in 3 cases, ague in 3, puerperal fever in 1, measles in 2, typhoid in 2, and trauma in 1. Rheumatism was the cause of mitral insufficiency, mitral stenosis, aortic stenosis, and aortic insufficiency with the following degrees of frequency, as 8 is to 4, to 3, to 2 respectively. In only three cases were mitral lesions alone observed to apparently arise from atheroma, but they were several more times associated with aortic lesion.

Combined aortic stenosis and mitral stenosis was observed three times; aortic stenosis and insufficiency five times; mitral stenosis and aortic insufficiency two times; mitral insufficiency and aortic insufficiency one time; aortic stenosis, insufficiency, and mitral stenosis one time; and both aortic lesions and mitral insufficiency two times. Incompetence of the auriculoventricular valves of the right heart was observed ten times associated with mitral lesions.

Bronchitis was the commonest complication observed. Nephritis occurred very often, but six times in aortic lesions to four in mitral. Anemia and asthma were also common complications. Tubercular disease of the lungs occurred in three cases, pericarditis in five, angina pectoris in five. Rheumatism recurred often in those cases caused by it. Grip and gastritis were also occasional complications in these cases of chronic valvular disease of the heart.

From the standpoint of prognosis it is interesting to know that the mortality from heart disease varies in different sections of this country. In 10,000 insured persons in each of the following districts the mortality was as follows: New England and New York, 6.1; Michigan, Wisconsin, Minnesota, Nebraska, 4.1; New Jersey, Pennsylvania, 7.1; Ohio, Indiana, Illinois, 4.4; Delaware, Maryland, District of Columbia, Virginia, Kentucky, Missouri, 6.3; Southern States, 6.6; Washington, Oregon, California, Utah, Dakota, New Mexico, 7.4.<sup>1</sup>

<sup>1</sup> Stillman's "The Life-insurance Examiner," p. 12. Appendix.



**THE MANAGEMENT OF TYPHOID FEVER IN A COUNTRY PRACTICE.<sup>1</sup>**

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TYPHOID FEVER is always the result of neglect or failure of prophylaxis, and the latter fails so often that the physician is of necessity more occupied in curing than in preventing the disease. I would not in any sense belittle the importance of prophylaxis. In this disease so much of the instruction given in text-books is difficult to apply in a country practice that I have thought best to speak of my experience in trying to adapt our limited curative means to our surroundings and environments.

One of the greatest difficulties we have to deal with is the lack of trained nurses. To overcome this the physician should insist on having one person take charge of the patient, and then instruct that one in the minutest details of taking temperature, giving baths, injections, etc. He should always insist on having a written record kept, not only of the temperature, but of every other occurrence in connection with the case, *i.e.*, actions of the bowels or kidneys, sweating, sleep, pain, delirium, etc. This person should provide herself with a thermometer, syringe, and bed-pan, and ruled charts with the date and hours plainly written, using a page for each day with hours running from 1 A.M. to 12 M., midnight. This record should be filed for future reference as it may assist in the prognosis late in a bad case.

The physician should insist on absolute rest in bed with only a light garment on, which should reach from the shoulders to the heels, a comfortable bed with an oil-cloth under the sheet, a light, well-ventilated room, and should cause to be removed from the room everything not necessary to the comfort of the patient. Every article which is removed from the patient or bed should be put into boiling water as soon as possible. The vessels used to receive the dejecta should be scalded immediately after being used. The room should be sprinkled two or three times a day with boiling water containing five per cent. of carbolic acid, and some of the same solution should be kept constantly in the bed-pan. After each discharge from the bowels the nates should be wiped with a cloth moistened with hot water containing one per cent. of carbolic acid. Medicines and articles of diet intended for the patient should never be kept in the sick room. The patient should never be allowed to use the dishes, spoons, dipper, etc., which are used by the family, and those which the patient uses should be cleansed with hot water several times a day.

The clothing, sheets, covers, and pillow-cases

should be changed and aired or washed every thirty-six hours. The mouth should be cleansed frequently with Dobell's solution, or some other good antiseptic wash. I believe that pulmonary complications are often excited by the inhalation of septic matter from the mouth, and therefore careful attention to the antiseptics of the buccal cavity may prevent such complications.

The temperature of the sick room should be kept as near 65° F. as possible. There is usually an unnecessary dread of draughts during the height of the fever. The sick room should be light, quiet, and cheerful, and if possible the bed should be so placed as to give the patient a pleasant out-door view. Never allow visitors in the sick room. No attempt should be made to amuse or entertain the patient; the senses are blunt, he suffers little or no pain, and is occupied with his morbid fancies, which are usually of a pleasant character, and may amount to delirium. This morbid occupation of the mind is perhaps beneficial in preventing the patient from worrying about his condition or his business.

These details may seem at first glance unnecessary and laborious, but any physician who will give this plan a fair trial will be convinced of its advantages. He will soon be rewarded by finding partially trained nurses over the country, whom he has inspired with confidence by the care he has given to their instruction and who will cheerfully second his efforts in caring for the sick, and thereby relieve him of much anxiety about his patients.

It is always advisable for the physician to inform the nurse from time to time of the accidents, complications and sequelæ that may arise during or following the continuance of the disease, at the same time stating that he hopes to avoid them, but should any of them occur the friends will know that it was not unforeseen by him, and will not conclude that he does not understand the case. It is also well to impress upon the minds of both patient and friends the fact that the case is necessarily very tedious, but at the same time if the patient will keep quiet and obey orders, and the nurse will studiously follow instructions, the chances are very largely in his favor.

After convalescence is established, and everybody is happy at the favorable turn in the case, and the friends think "the fever is broke," the physician should notify them that they need not be surprised nor greatly alarmed if they should at any time discover that the temperature has suddenly risen to as high a point as it had ever reached during the primary attack. The temperature record should be kept, at longer intervals, for several days after it has become normal.

It is important to know the exact date of the on-

<sup>1</sup> Read before the Crittenden, Ky., Medical Society.

set of the disease, as there will be a crisis in the case every seventh day. Sometimes when the case is progressing favorably the improvement in the symptoms will be very apparent to the friends, and they will naturally expect that the next day or two will show similar improvement, but the physician may inform them that there will be no further apparent improvement for another week at which time he hopes to see another favorable turn in the case. The physician's resources are often more severely taxed in the management of the friends than of the patient.

Of all the articles of diet recommended in this disease milk is to be preferred. It should be given in small quantities and at regular intervals of about three hours. If it disagrees and causes pain and flatulence and curds or undigested casein are vomited or passed from the bowels the quantity should be diminished, or liquid pepsin given after the milk. Buttermilk is often well borne by patients who cannot take the sweet milk. It is perhaps because the buttermilk does not form a large curd in the process of digestion as the casein is broken up during the separation of the cream in the form of butter. If the milk is from a Jersey or Alderney cow it should be skimmed and diluted with an equal volume of boiled water. It is necessary for the physician to investigate the source of the milk-supply and see that the most scrupulous cleanliness is observed in the handling of the milk, and even in the feed and water given the cow; and the care of the stable in which she is kept.

The nurse should never carry more of anything, food, water, or medicine, to the patient than is intended shall be taken at one time. No cup, spoon, or glass should be used the second time until it has been cleaned with hot water. The patient should be fed at regular intervals without regard to the desire for food. Many typhoid patients would starve to death if not fed until they called for food. Water should be given in liberal quantities. The patient should be urged to take it freely. Patients will often take it in the form of lemonade when it is difficult to induce them to take clear water. The tissues dry up and wither and die from lack of water just as vegetation dies from drouth. Other articles of diet which may be given to vary the monotony are beef-juice, beef-tea, chicken- or mutton-broth, etc. White of egg or the whole egg thoroughly beaten with an equal measure of skimmed milk and a little sugar and a teaspoonful of whisky or brandy is often relished. Starchy and fatty articles should be prohibited because they cannot be digested.

Medicinal treatment should consist in efforts at antipyresis, antiseptis, aseptis, and such measures as

will prevent complications, control urgent symptoms, and support the strength of the patient. The Brand method of controlling hyperpyrexia, or some modification of it, is the only one worthy of serious consideration at the present time. It is impossible to carry out this method in a country practice like ours, but I find that sponge-bathing, when properly done, will produce just as good results. I begin the bathing early, often before I am certain of my diagnosis because I find that it produces equally good results in any febrile condition. The sponge bath possesses the advantage of easy application. Any intelligent person can be taught in a few minutes to apply it. The bath should be used every three hours when the patient's temperature is above 102° F. I begin with hot water and gradually reduce the temperature until I find that which produces the best effect on the individual patient, for I find that every case requires a temperature suited to its own peculiarities. The patient's temperature should be taken just before and an hour after the bath and carefully recorded each time in order to note the effect of the latter. When the proper degree is found the bath should be continued at that temperature. It should be applied gently and continued thirty minutes unless the patient complains of chilliness. In this way it does not produce shock, and there will be no prejudice against it. The patient should be protected from draughts during the bath, and every part of the body should be thoroughly bathed. There need be no fear of a little moisture left on the sheet or the body of the patient.

I sometimes keep the patient's chest and abdomen covered with a large towel wrung out of water at the proper temperature when the periodical baths fail to reduce the temperature. Children are often much worried by the sponge bath, in which case the wet pack may be used. In many cases the wet pack is superior to the periodical bath because of its continuous action. When using the hot bath it is necessary to take the patient's temperature in the mouth or rectum after the bath, or if taken in the axilla the attendant should be sure that the heat of the bath has disappeared from the body before it is taken, otherwise the record may be incorrect. A rubber bottle filled with ice-water should be kept to the head during the bath, or all the time, if it is agreeable to the patient.

Among remedies used for the purpose of intestinal antiseptis I regard thymol as far the best. It is open to the objection that it sometimes produces an intolerable burning in the throat and stomach and must be given in pill or capsule form, and is administered to children with difficulty. When it is dissolved in olive oil this difficulty is

almost entirely overcome. It may then be given to children by mixing it with syrup of acacia. My favorite formula is the following:

Thymol . . . . .	gr. xvi
Menthol . . . . .	gr. xvi
Ol. terebinth. . . . .	3 ii
Ol. olivæ . . . . .	q. s. ad $\frac{3}{4}$ i.

M. Sig. Ten drops in capsule every four hours.

Thymol, if well borne, may be given in doses of 1 grain every four hours. The drug is not absorbed in the stomach and therefore reaches the intestines in its original form. Being incorporated with the oil increases this property. It is well enough to give a mild purgative of calomel if the case is seen early, but not after the tenth day. I usually give  $\frac{1}{16}$  of a grain every hour till 3 or 4 grains have been given.

Other antiseptics are naphthalin, which is highly lauded by Wolff of Philadelphia; salol, charcoal, iodoform, creasote, iodine, carbolic acid, guaiacol, and beta naphthol. I have had some experience with most of them and found them unsatisfactory. The late Dr. William Pepper used nitrate of silver in doses of  $\frac{1}{4}$  to  $\frac{1}{2}$  of a grain from the beginning to the end of an attack of typhoid fever and claimed wonderful efficacy for it. Tincture of the chlorid of iron, 8 to 20 drops every four hours, from the end of the first week until convalescence is well advanced will preserve the strength of the patient, shorten the stage of convalescence and make the recovery more satisfactory. Alcohol may be used in the later stages of the disease when it has a salutary effect, improving the volume and reducing the frequency of the pulse and relieving delirium and subsultus, and when there is a tendency to subnormal temperature. It should be given in such quantities as are suited to the individual case. An intemperate person will require more than a temperate one, an old person more than a child.

Most complications of typhoid fever may be prevented by proper management. Diarrhea is best treated by the administration of opium, gallic acid, nitrate of silver, sulphate of copper, salicylate and subnitrate of bismuth, etc. Sometimes small doses of castor oil, by clearing the alimentary canal of offensive matter, will check a diarrhea, relieve tympanites, reduce the temperature, and soothe the patient into a quiet sleep. Castor oil is also the best agent for relieving constipation, as it removes dried accumulations and impactions from the semiparalyzed intestines and lubricates the inflamed mucous membrane better than any other purgative. Often when the bowels seem to be sufficiently active there is constipation above the ileocecal valve. When enemata fail to relieve tympanites a dose of oil should

be given. Tympanites should be treated by enemata of from 1 to 4 pints of sterilized water repeated every day as long as the condition lasts. Intestinal hemorrhage should be treated with ergot, acetate of lead, gallic acid, cold drinks; cold compresses to the abdomen, and absolute rest in bed.

Pulmonary and cardiac complications call for supporting treatment—strychnin, alcohol, nitroglycerin, and frequent change of position. Epistaxis, thrombosis, parotitis and bed-sores should be treated as in other conditions, but the latter should never be permitted to occur. The best remedy for the severe colicky pains in the stomach and bowels which sometimes occur during convalescence is extract of cannabis indica,  $\frac{1}{3}$  of a grain every six hours.

The management of convalescence requires almost as much skill, tact, and patience as any other stage. The return to solid diet should be very gradual as the slightest indiscretion in this particular may bring on an alarming and even fatal relapse. The patient should be kept in bed at least a week after the temperature has become normal. After the third week it is necessary to keep a close watch for the occurrence of subnormal temperature and when it occurs alcoholic stimulants should be given in such quantity as is necessary to raise the temperature to normal. For the colliquative sweats which sometimes occur during this stage I have found nothing better than 10 drops of aromatic sulphuric acid every six hours in a wineglass of water.

When a case is properly managed it is seldom necessary to give sedatives, but in spite of the most careful attention a sedative is sometimes called for to relieve restlessness. The best combination I have ever tried for this purpose is the following:

R Chloral . . . . .	gr. viiss
Tr. opii camph. . . . .	℥i.

M. Sig. Every hour until quiet. It should be given well diluted with sweetened water or syrup. The free use of opiates as practised by some cannot be too strongly condemned.

#### THE DIETETIC MANAGEMENT OF SOME OF THE DISEASES OF INFANCY.<sup>1</sup>

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THE immense importance played by the diet in the management of an illness in a baby is surprisingly little appreciated. When ill, adults and older children, those beyond the bottle age, are placed upon a reduced diet. A man with gastro-enteritis, pneumonia, or any severe illness with fever, is not allowed roast beef and potatoes; in fact, such a diet

<sup>1</sup>Read before the Hospital Graduates' Club of New York.



would be rejected by the patient and other medical aid summoned. When the baby in this same family is ill with gastro-enteritis, pneumonia or any severe illness with fever, how many parents and physicians are there who discontinue with the child what to it is the equivalent of roast beef and potatoes? The full milk diet is generally allowed. The child is thirsty and eager for fluids and more milk is taken oftentimes than in health.

In every illness in infancy the digestive capacity is diminished to a considerable extent, variously estimated from one-half to two-thirds. The full milk diet causes indigestion and intestinal toxemia, increasing the fever and prostration, in short, giving the patient just so much the more to bear. During the exanthemata, pneumonia, and severe bronchitis, or in any severe illness with fever, I reduce the milk mixture one-half with water, so that the amount of fluid taken remains the same. Two or three times a day the milk-feeding is substituted by an animal broth or barley water.

In the management of the gastro-intestinal affections of the young, the diet, as would naturally be expected, is a most important factor. Among the derangements of the nursing age there are few that cause more annoyance or are harder to manage successfully than constipation. This trouble has been attributed to various causes by many writers. The comparatively long, large intestine folded on itself in a narrow pelvis offering an obstruction to the intestinal contents is thought by many to be the chief cause of the trouble. The lack of development of the muscular structure of the intestine is supposed by others to be the producing cause. The lack of nervous power due to an undeveloped sympathetic nervous system is thought to be an important factor. In all probability the agents referred to may all be looked upon as predisposing factors, but I doubt exceedingly if any one of them was ever an immediate cause of constipation. One who has seen many cases of summer diarrhea in active operation will not question the muscle and nerve power of the intestine, or believe that the folding of the colon on itself offers any great obstruction.

Constipation in infants is due in a large measure to the element of casein in the child's nourishment, which, of course, is milk. Casein, in excessive quantities, a higher percentage than normal with normal fat, will cause constipation. A child fed on a milk containing normal casein and low fat will probably be constipated. Infants may be constipated on a perfectly modified milk because of the difficulty of digesting cows' milk casein; or it may be due to the heating of the milk to an excessive degree.

Among the breast-fed, the dietetic management of this disorder is difficult, for it is hard to change the character of the mother's milk. Much may be done, however. Examine into the daily life of the mother and you will usually detect an inactive habit, a good feeder, usually a tea drinker, and probably constipation. An examination of the milk of these mothers will show that the normal relative proportions of the fat, proteid and sugar have not been maintained. The proteid will usually be found higher than normal with low or normal fat. The first step in treatment is to regulate the habits and life of the mother. The bowels must be evacuated daily with a laxative if necessary. She must be placed on a fresh meat, fresh vegetable and cooked fruit diet; a malt liquor with luncheon or dinner is advised. She is instructed to take at least three hours' exercise daily in the open air. This régime will diminish the proteid, increase the fat and not only relieve constipation in the child, but furnish it with better nourishment and a later weaning than would otherwise be necessary. The treatment of the mother will answer in a considerable number of cases, but when we fail, the further treatment is with the child. My first step is to give cream. Not purchased cream, but cream which has been produced from the best milk obtainable. I give from one-half to two teaspoonfuls in quite warm water immediately before nursing. The use of the gluten suppository at the same hour of the day for several days will do much to establish the habit of a passage at a certain time. In case the cream does not agree or is ineffectual, pure cod-liver oil 15 to 30 minims, three or four times daily, may be found useful. When the means enumerated fail, as they will in a small number of cases, medication will be required. Cod-liver oil is used as a food, not as a medicine.

In the bottle-fed and in the "run about" children the management is much easier and more fruitful in results. The treatment is simple and resolves itself largely into a manipulation of the fat and proteid. Given a bottle-fed child six months of age, suffering from obstinate constipation—the proteids are at once cut down to a minimum by prescribing cream, water, and sugar mixture. For this purpose a 16-per-cent. cream is desired. The nurse or mother is instructed to allow the milk which is delivered in bottles at about six o'clock in the morning, to rest in the refrigerator until twelve o'clock, when the cream is removed. If the milk is good the cream will contain approximately 16 per cent. of fat; if it varies from this figure it will probably be a lower percentage. I use the pint (sixteen ounces) for a standard. If we mix 1 ounce of this 16-per-cent. cream with 15 ounces of water, we will have a 1-per-

cent. fat mixture. If 2 ounces of cream are mixed with 14 ounces of water, a 2-per cent. fat mixture will result; if 4 ounces of cream with 12 ounces of water, we will have a 4-per-cent. fat mixture. But our 16-per-cent. cream contains more than fat. It contains approximately 3.2 per cent. proteid and 3.2 per cent. of sugar. If then we were to prepare a food for this six-months' constipated baby, I should endeavor to give a high fat mixture, 4 per cent., with as low a proteid as possible. In order to do this we use 4 ounces of cream and 12 ounces of milk. This, as will easily be seen, would furnish us a 4-per-cent. fat, .8-per cent. proteid and .8-per-cent. sugar. The fat is as high as we wish it, the proteids low where they ought to be, and the sugar low, which we increase by the addition of milk or cane sugar.

A word about the low proteid, .8 of 1 per cent. Compared with the mother's milk it is low, but we must remember that in our modifications we are not dealing with mother's milk. It is unwise to attempt to give in many cases as high a cow proteid as is contained in mother's milk, for the reason that it is more difficult of digestion and by reason of its higher nutritive properties it is not required. In case the reduction of the proteid is impracticable or does not furnish relief, I add to each feeding of the cream or milk mixture one or two teaspoonfuls of Mellin's food or malted milk, which will often act as a satisfactory laxative. This is the only use to which I ever put either of these articles. In older children, eight or twelve months of age, diluted cream with water is often given with oatmeal jelly, one or two tablespoonfuls to each feeding. It is extremely rare for a child to resist this treatment. When such is the case I find the stool usually soft when voided. The cause of constipation in these cases is doubtless due to deficient peristalsis. In these infants medication is required.

In "run about" children the use of cream and water mixtures, rare meat, green vegetables, stewed fruit, zweibach, and bran biscuit renders the management of constipation at this period exceedingly simple. The meals must be given at stated intervals, crackers, bread, potatoes, and other coarse starches excluded. The more milk is heated the more does it act as a constipating agent.

In no illness of childhood is the diet of more importance than in acute gastro-intestinal diseases of summer. In these disorders we have, as is now recognized by all workers in this field, a gastro-intestinal infection primarily to deal with, a poisoning process brought about through the agency of bacteria; direct infection by means of bacteria swallowed; indirect or auto-infection so-called, whereby the bacteria, always present in the intestine, are given an oppor-

tunity for growth and development through the withdrawal of the normal digestive disinfectant juices. Such a condition may be the result of any febrile illness, or through the action of heat, cold, fright, or any means which may indirectly prevent the normal amount of the substances being furnished to the intestinal canal in their usual strength. We know that for the vigorous growth of bacteria a culture field is required. There must be warmth, moisture, and a favorable medium. If, then, we know there is an infection, through the means of which our patient is made ill, it is our duty to make the field as inhospitable as possible. Our first step then in the management of summer diarrhea, whether the child is nursed or bottle-fed, is to discontinue the milk at once. In the scramble for intestinal disinfectants we have lost sight of the fact that bacteria may be killed by other means than direct contact. To digress a moment, I can imagine nothing more ridiculous than the physician giving a child with summer diarrhea cooked milk, which is difficult of digestion at any time, and giving the child resorcin, salol, etc., drugs which disturb digestion and are of questionable utility in the intestine, if they ever reach it.

As before mentioned, we may kill bacteria in other ways than by direct contact. We will withdraw all favorable culture media and give non-irritating drugs that will render the culture field as inhospitable as possible. The diet allowed must be of such a nature that it will be absorbed largely by the stomach; keeping the intestine empty and giving it as much rest as is possible. I prescribe barley water, rice water, chicken-broth, beef juice, diluted one in ten, wine whey, and the liquid peptonoids in barley water. It is well to prepare three or four articles of diet and then alternate them. The child will soon tire of one of these substitutes if given at every feeding. I find it a very good scheme to use barley water as a base, with the addition of a teaspoonful of beef juice or a teaspoonful of liquid peptonoids; with the barley water may also be mixed a small quantity of chicken broth.

The patients are fed every two hours if they require it, in quantities equal to that which they are accustomed to in health. White-of-egg mixture I rarely use. I look upon it with almost as little favor as milk. Upon resuming the milk diet, which may be allowed when the stools approximate the normal, care must be exercised that the child is not put on the customary strength at once. If this is done our treatment will probably have to be repeated. I usually begin with one-half an ounce of milk to the feeding of five or six ounces of barley water and increase one-half ounce daily if it is well borne. Many children will not be able to take this small amount.

With these it may be necessary to continue the above-named substitutes for a considerable period of time.

## CLINICAL MEMORANDA.

### EMPHYEMA OF THE PLEURAL CAVITY.<sup>1</sup>

By W. J. BREEDING, M.D.,  
OF TAYLORS, TENN.

**CASE I.**—Mr. B., aged forty-five years, recently came under my observation with a large abscess pointing in the infrascapular region. This was freely opened; it discharged three pints of offensive pus. The abscess was kept open and drained freely, and was found to communicate with the pleural cavity. The opening, however, was not sufficiently large to drain the cavity, which was found upon examination to be full of pus. The resection of a rib was advised, but the patient's consent could not be obtained. Later I was called again and informed that the patient had been passing a peculiar, bloody, offensive material almost constantly from his bowels for several hours. The nurse said that the material was identical with that discharged from the external abscess.

Physical examination of the chest revealed an absence of the former dulness, respiration was almost normal, and soon the patient was much better. The discharge from the external opening also ceased, and he gained steadily for about thirty-five days, but finally died, evidently from an infection involving the gastro-intestinal tract.

I have searched diligently for literature on the subject of a pleural abscess rupturing into the alimentary canal, but find on record only one case, reported in the *MEDICAL NEWS* for June 24, 1893, by Dr. N. T. Dulaney of Bristol, Tenn. The empyema in this case was produced from a gunshot wound through the lung. The abscess pointed on the back to the left of the spine. This was incised and drained of pus and débris. A rupture into the intestinal canal was proven by injecting permanganate of potash solution into the bowel, which was forced through the external opening communicating with the pleural cavity.

It appears very rational to my mind that in surgically neglected cases of empyema the force of gravity could press an inflamed pleura downward against the diaphragm, where it could become adherent, and that the opposite surface of the diaphragm from irritation could form an adhesion with the colon. The pressure from above might in this manner cause a pointing and rupture into the intestinal canal. However, I have never seen this theory expressed in medical literature.

**CASE II.**—Miss A., aged eighteen years, student in a boarding-school. Family history good. Came under observation February 8, 1898. She gave a history of having been confined to her bed some three weeks, during which time she was very properly treated by a competent physician for pneumonia. The history and temperature charts, so far as I was able to ascertain, did not

show a sudden crisis, but the continuance of an irregular temperature.

I found her very much emaciated, lying on the affected side, respiration about 24 per minute, pulse 120, and temperature in the afternoon 102.5° F. My physical examination revealed what appeared to be fluid in the pleural cavity, extending as high as the fifth intercostal space in the axillary line. I was informed that a microscopical examination had demonstrated the presence of tubercle bacilli in her sputum. In view of this opinion I was somewhat undecided as to the diagnosis, the question being whether it was consolidation from tuberculosis or empyema. I was inclined, however, to the latter opinion. Repeated physical examinations revealed a gradual increase of the pathological condition upward until it had involved the entire left side. The absolute flatness on percussion, displacement of the apex downward and to the right, with other corroborative symptoms, led me to a positive diagnosis of empyema. The patient's condition at this time contraindicated the resection of a rib, so I decided to aspirate. On March 1st the needle was introduced between the eighth and ninth ribs, posteriorly, and something more than one pint of pus withdrawn. This aspiration was repeated four different times. Severe coughing and symptoms of collapse always prevented the withdrawal of more than one pint. These aspirations seemed to have a favorable effect on her temperature and general condition for a few days, when the symptoms and physical signs would return as before.

Realizing that more thorough drainage must be secured, on March 15th an incision about one and one-half inches long was made into the pleural cavity between the seventh and eighth ribs. Through this opening quart after quart of creamy pus was discharged. It was kept open by means of gauze packing, and after the opening became smaller an intubation-tube was introduced and retained by means of adhesive strips. Two days after this opening was made a rupture into a bronchial tube occurred, as was shown by pints of pus pouring from the mouth and the gurgling of air in and out at the external opening.

The patient now passed rapidly into a grave condition. Her pulse was 140 per minute, very irregular, and at times could not be counted at the wrist. Evacuations from the bowel and bladder were involuntary. She was unconscious and unable to swallow liquids for three days. Subsultus tendinum was very marked, her temperature was subnormal, and her abdomen became as tympanitic as a drum. Hypodermic injections of strychnin and nitroglycerin were given every three or four hours.

I gave an unfavorable prognosis. The friends made arrangements for the funeral and expressed a hope that death would soon end her suffering, as this end seemed inevitable. From this extreme condition she gradually regained consciousness. As soon as she was able to swallow tablet triturates of calomel and soda were given with the object of partially disinfecting the foul alimentary canal, turpentine stupes were applied externally, and turpentine enemas administered. An excessive diarrhea ensued, lasting five days. The abdomen assumed a

<sup>1</sup> Read before the Upper Cumberland Medical Society, at Gainsboro, Tenn., May 2, 1899.



scaphoid shape, and her appetite became ravenous. On March 30th, fourteen days after the thoracotomy and the coincident rupture into the bronchial tube, the following report was made: Pulse, 106, much stronger and not so irregular; temperature in the afternoon, 99.5° F.; appetite good; urine three and one-half pints in twenty-four hours and normal in appearance. Two or three discharges from the bowels daily, showing good digestion. The opening discharges half a pint daily. The cavity is packed with gauze twice in each twenty-four hours. The patient is anxious to sit up in a chair this morning, and wants to know when you will allow her to go home.

A physical examination the next day revealed unmistakable evidences of fluid at the apex of the lung, while the lower region, being constantly drained, showed no signs of fluid. I was forced to the opinion that I had to deal with another pus cavity at the apex, which was undoubtedly separate and distinct from the one below; consequently a thoracotomy was performed, and more than a quart of pus withdrawn from this cavity. The opening was packed daily, with a continued improvement in the patient's condition for some two weeks, when evidences of fluid were detected between the two points mentioned. Another opening was made between the fifth and sixth ribs anteriorly on May 1st. The pus was very superficial in this locality, and could be seen pushing outward when the patient coughed. Large quantities of pus drained from this opening, with a much more rapid improvement in the patient's condition. She now had three openings into her pleural cavity, one between the first and second ribs, one between the fifth and sixth, and one between the eighth and ninth ribs. These openings were all packed twice daily with sterile gauze. When the packing was removed the patient's position was changed, and all the cavities drained thoroughly.

After the last operation her temperature remained almost normal, her pulse about 100, her appetite became ravenous, and her strength gradually increased until she was able to go to her home in North Carolina on June 18, 1898, three and one-half months after she came under my observation.

At my last examination I found the lung gradually expanding, and there were no symptoms of pus in the pleural cavity. She was instructed to keep the openings packed to prevent closing as long as a discharge continued. My last letter from her states that she is practically well, weighs 134 pounds, walks one and one-half miles to church, does housework at home, and expects to begin teaching school soon. All the openings have closed except the one at the apex, which still discharges a thin, watery fluid occasionally.

I think we can draw the following logical conclusions from this case: First, aspiration is useless except as a palliative and diagnostic measure. Second, thoracotomy is often preferable to the resection of ribs, or Eastlander's operation, in cases of extreme asthenia. Third, there is a possibility of recovery after rupture into a bronchial tube. Fourth, there is a possibility that distinct pus-cavities may be formed by pleural adhesions, and such cavities must be drained and treated as separate pus cavities. Fifth,

in cases of separate abscesses it is much wiser to make a simple incision between the ribs into the pus cavity when there is sufficient intercostal space rather than subject the patient to the very grave risk from an anesthetic and the resection of ribs for the purpose of drainage. Sixth, one should never despair of such cases, however desperate they may appear.

#### **BULLET WOUND OF THE LIVER AND LUNG; OPERATION; RECOVERY.<sup>1</sup>**

By P. R. BOLTON, M.D.,

OF NEW YORK;

INSTRUCTOR IN SURGERY IN THE CORNELL UNIVERSITY MEDICAL  
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PATIENT, male, aged forty-two years, a pedler by occupation. Family history negative. No previous serious illness. On September 8, 1898, he received a pistol wound at close range, the thirty-two-caliber ball entering the abdomen just to the right of the median line and about two and one-half inches below the tip of the ensiform cartilage. On admission to the Hudson Street Hospital there was a considerable degree of shock, but no further symptoms significant of intestinal injury or injury of the lung. Temperature 100° F., respiration 26, pulse 106.

Under ether anesthesia the wound of entrance was enlarged to four inches by extending it up and down through the rectus muscle and the peritoneal cavity opened. The anterior surface of the left lobe of the liver presented a horizontal laceration two and one-half inches in length and one inch in depth, from which fairly active bleeding was going on. There was a considerable amount of free blood in the peritoneal cavity. Digital exploration of the liver wound failed to disclose the path of the bullet, and it was tightly packed with gauze, which easily checked the hemorrhage from it.

No intestinal wound was discovered, and after sponging out the peritoneal cavity the incision of the abdominal wall was closed by suturing in tiers, the gauze packing of the liver wound being brought out at the original wound of entrance. A dry dressing was applied and retained in place by a bandage applied snugly about the abdomen and lower chest in order to exert as much direct pressure upon the gauze packing as practicable and to limit respiratory movements as much as possible.

The patient was returned to bed, but slightly more shocked than before operation, and reacted well from the ether. His afternoon temperature on the following day rose to 102° F., then gradually fell to normal after a few days. His general condition was excellent throughout convalescence. The gauze packing was entirely withdrawn on the third day and primary union of the suture line occurred without incident. On the sixth day the patient himself discovered the bullet beneath the skin overlying the sixth intercostal space in the right axillary line, and a small incision served to remove it from this position.

Examination of the chest now showed that the pleural cavity of the right side contained a moderate amount of

<sup>1</sup> Read at a meeting of the Surgical Section of the New York Academy of Medicine, May 1, 1899.

bloody fluid, which was probably the cause of the slight cough and local pain which the patient had previously mentioned. But there was no recognizable evidence of a lesion of the lung though this organ must have been traversed by the bullet in its path from the epigastrium to the position from which it was extracted. The pleura was emptied of blood by aspiration, and at the time of his discharge from the hospital all signs of its presence had practically disappeared.

The case presents at least two points of interest: first, a wound of the lung unaccompanied by hemoptysis; second, the readiness with which bleeding from the liver wound was checked by packing with gauze.

One not infrequently sees subcutaneous fractures of the ribs associated with cellular emphysema, in which there is no hemoptysis, but with the more extensive injuries of the lung bloody expectoration is the rule but not without exception, for several of the men shot through the chest with Mauser bullets at Santiago last Summer, who came under my care at Bellevue Hospital after their removal North, gave no history of having spit blood at any time, while in at least one of these individuals hemoptysis was a conspicuous feature. One may, therefore, justly infer that the absence of hemoptysis by no means excludes penetration of the chest-wall and lung by bullets in wounds of the thorax in which the path of the ball is in doubt.

The control of bleeding from wounds of the liver is often most difficult by either the cautery, suture, or packing, though success oftenest follows the last-named plan. The cautery is almost useless in closing the orifices of the gaping hepatic veins. Sutures, in order to compress the veins sufficiently to obstruct them, usually cut out and thus add to the difficulty. Gauze, on the other hand, firmly crowded into the liver wound, supplemented by digital compression for a few moments, usually succeeds. Whether tightly bandaging the abdomen and lower ribs and enforcing costal breathing to prevent dislodgment or loosening of the packing by movements of the diaphragm is conjectural, but it seems at least worthy of consideration.

## THERAPEUTIC NOTES.

*Treatment of Catarrhal Ulcerations of the Large Intestine.*—RICHTER (*Therap. Monatshefte*, March, 1899) says that it must be admitted that most of the food taken during the day finds its way, by the following morning, into the large intestine. If, therefore, one would employ remedies to heal ulcers in this portion of the alimentary tract it is best to give an early morning injection, and then to administer astringents, subnitrate of bismuth, etc., by the mouth, before the patient is allowed to have any nourishment, the breakfast being postponed for a few hours. By this means he has been able to cure, he says, some cases which were rebellious to other methods of treatment.

*Extraction of a Hat-pin from the Urethra.*—BROUSSIN (*Centralbl. f. Chir.*, April 8, 1899) was able to extract a hat-pin from the male urethra under apparently unfavorable circumstances. The pin had been introduced head

foremost and had slipped wholly into the urethra, so that its point was about an inch inside the meatus. Clamps were placed upon the lips of the meatus and drawn upon in order to make the urethra tense, and to draw out of its wall the point of the pin. A rubber catheter which had been cut off square was then slipped into the urethra and over the point of the pin. When the tension on the urethra was relieved and the penis drawn backward the catheter covering the point of the pin was crowded out of the penis and, the point of the pin thus being obtained, the whole was easily withdrawn.

### *The Use of Salicylic Acid and Salicylates in Children.*—

COMBY (*Rev. de Therap.*, April 1, 1899) gives a number of prescriptions in which salicylic acid and its compounds may be used with advantage in the treatment of diseases of children.

#### For infantile eczema:

R	Vaselin	.	.	.	.	.	3 j
	Lanolin	.	.	.	.	.	3 iv
	Zinci oxidi	.	.	.	.	.	gr. lxxij
	Ac. salicyl.	.	.	.	.	.	gr. xij.

M. Sig. Rub in morning and evening.

#### Or the following:

R	Ac. salicylici	.	.	.	.	.	gr. ii j
	Pulv. lycopod.	}	aa	.	.	.	3 j.
	Pulv. amyl.			.	.	.	
	Pulv. talc.			.	.	.	

M. Sig. Dust the affected parts three or four times a day.

In tonsillitis a bandage around the throat may be kept wet with the following mixture:

R	Ac. salicylici	.	.	.	.	.	gr. xij
	Alcohol	.	.	.	.	.	q. s
	Glycerin	.	.	.	.	.	3 j
	Infus. eucalypti	.	.	.	.	.	3 iss.

In articular rheumatism an application of vaselin containing salicylic acid, one dram to the ounce, may be made over the affected joint. Or a 33-per-cent. mixture of salicylate of menthol in liquid vaselin may be used. Rheumatism in infants is particularly susceptible to salicylate of soda administered internally. For this purpose the daily dose is 7 grains for each year of the child's age. If the stomach does not tolerate the drug it may be given rectally after an evacuation.

For intestinal antiseptics the salicylate of bismuth may advantageously replace the subnitrate of bismuth. The usual dose is 3 grains a day for each year of the child's age.

*Cold Water to Allay Persistent Vomiting.*—MITCHELL (*Virginia Med. Semi-monthly*, April 14, 1899) reports the successes he has had with cold water in the treatment of persistent vomiting. It is applied to the epigastrium by means of towels wrung out of ice-water, which are changed every minute until the vomiting ceases. In fifteen or twenty minutes the cold will be successful, and the treatment may then be discontinued, to be resumed later if necessary. By these simple measures Mitchell has succeeded in stopping dangerous vomiting, in a number of instances, after child-birth for example, when medicines and other external applications had failed to give relief.

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SATURDAY, JUNE 17, 1899.

## UNNECESSARY STREET NOISES AT NIGHT.

NEW YORKERS have learned to put up with almost any amount of noise on their streets without a murmur. The liberty thus accorded has been abused more and more until now there is no city in the world which is less suitable for the habitation of people with ordinary nerves. Preventable noises have occupied heretofore only the daylight hours, but now they are becoming a part even of the night and especially of the precious early morning hours when tired city people should have an opportunity to rest undisturbed.

So-called newspaper enterprise has made the night hideous with cries of "extras" containing very little that is extraordinary and as this has been allowed with impunity further invasions into the nightly silence are presumed upon. We had last week a most flagrant violation of public order in this matter. For days the city had been sweltering in a torrid heat that affected every one seriously and extending into the night made rest almost impossible. On the first reasonably cool night after the heated spell, when an exhausted community hoped to regain some

of its lost sleep, it happened that what the police department of the city considers a boxing-match was "pulled off." The result was a series of newspaper "extras" which were announced by demoniac howling on the streets of the residence portions of the city from twelve to two o'clock in the morning.

It seems useless to protest against unnecessary noises in the daytime. A certain callousness in the matter has developed in New Yorkers' ears and minds amidst the buzz and burr of the street cars, the rattle of wagons, and the roar of the elevated trains. But these night alarms in the quieter residence districts of the city are uncalled for and should be suppressed.

This is an eminently suitable field of work for the New York Board of Health that of late has shown a tendency to busy itself about many things not exactly in its line. It is well known that heat prostrations are due much more to the exhaustion incident to insufficient sleep on successive hot nights than to the actual intensity of the daily heat. Anything that is calculated to add further to nocturnal disturbance and wakefulness deserves especial attention during the heated season, when the necessity for having windows open makes all street noises so pervasive. Children in particular are easily disturbed by unwonted noise and are not easily quieted again, and so Nature's reparative purposes at night are sadly disturbed. We are just entering on what promises to be a summer of extremes in temperature; let us at least be saved the nuisance of unwarranted nightly disturbance.

## THE ANTIVACCINATION PROPAGANDA.

WE noted some time ago that a prominent English antivaccinationist was in this country and at work endeavoring to spread the teachings of his baneful sect. We understand now that members of the Legislatures of various States are being quietly labored with so that when antivaccination measures shall be proposed in the near future they may not be without their strenuous advocates. We have reason to know the tireless energy and persistence of these people in many matters, and it behooves the medical profession not to be taken unawares.

The full purpose and the ultimate object of the recent antivaccination legislation in England was not fully comprehended until the law had already been enacted and conscientious objectors were multiplying



beyond all possible expectation. The vigorous protest of the British medical profession has come too late to be of any avail to check the progress of this movement. It will now require much greater effort to undo this wrong than would have been necessary to prevent it. The Jenner Society has begun some efforts at organized education of the public regarding vaccination, but it is meeting with great opposition, and especially with a thoroughly funded set of lecturers who are effectually carrying out the supposed "educational work" of the Antivaccination League, which has been aroused to renewed efforts.

In America it behooves the medical profession to organize thoroughly to prevent any dangerous legislation in the line of obstructing vaccination from being enacted. State and National societies, whose meetings are so frequent now, should see that their legislative committees are instructed to keep a vigilant eye on this special feature of legislation. Owing to ineffective vaccination laws and inefficient enforcement of those that exist, there is much more smallpox in this country than is justifiable in the light of the knowledge we have on this subject. Let us not be compelled to face the possibility, as our English friends are destined to, of practically a large part of an entire generation being permitted to go unvaccinated. To secure this, however, we must not permit antivaccinationists to gain the public ear because we despise their efforts, nor supinely allow them to get any, even the slightest, legislative aid for a purpose that can only be redeemed by precious lives in after years.

#### VIOLENT EXERCISE AND THE KIDNEYS.

WHETHER albuminuria is always pathognomonic of some lesion of the kidney is still an open question. Professor Senator of Berlin, the distinguished specialist in kidney diseases, advocates the existence of a physiologic albuminuria. This occurs directly after large quantities of some simple albuminoid food, as white of egg for example, has been taken or is noted after a heavy meal in which albuminous material has been plentifully consumed, followed by considerable physical exercise. But the learned professor so hedges about his diagnosis of a physiologic albuminuria with precautions against the possible existence of a pathologic albu-

minuria, as to make its significance of no great importance. The majority of the authorities on urinary diseases concede at once that albuminuria is always extremely suspicious, and practically always indicative of a kidney lesion.

It is interesting to note then the condition of the urine after violent exercise is taken, violent in this connection being a very relative term and meaning rather unusual. For one who is unused to it a spin on a bicycle somewhat more hurried and prolonged than usual may constitute violent exercise. It was first pointed out, we believe, by Senator that each unusual physical exertion was often followed, even in individuals who had no pathological condition of the kidneys, by albuminuria. In these cases the amount of albumin passed was easily discoverable by the ordinary tests. Then Chvostek in Vienna showed that severe physical exercise is not infrequently followed by traces of blood in the urine, and occasionally by the occurrence of small blood casts as well as albumin. These disappear after a few hours and do not seem to be pathognomonic of any lesion of the kidney.

At the recent meeting of the American Climatological Association here in New York Dr. Harold Williams of Boston in a paper on the effect of violent exercise upon the heart brought out incidentally some interesting facts regarding its effect upon the kidneys. In each one of some thirteen runners examined carefully after a twenty-five-mile cross-country race albumin was found in the urine; in about one-half of the cases hyalin and even small granular casts occurred, though the urine had upon examination before the race been found perfectly normal. These abnormal urinary constituents disappeared within forty-eight hours, and the effect upon neither the heart nor the kidneys proved serious or persistent.

Whether the repetition of conditions that bring about such changes in the urine will not eventually lead to permanent pathologic alterations of the secreting substance of the gland no one is prepared to say. It seems clear, however, that upon the already weakened kidney of a chronic nephritic condition the call made by the necessity for the excretion of unusual amounts of the products of muscular metabolism can hardly fail to work serious injury. The advisability of extreme caution in this matter of ex-

ercise in cases of kidney disease is evident. In our day it is so common for patients to take the inconsiderate advice of friends and even to adopt certain notions of their own with regard to exercise that it would seem well to place before every patient suffering from nephritis the danger of unusual or prolonged exertion.

This warning seems especially appropriate just at this season of the year when patients are about to take their vacations. In the idleness of summer, foolish over-exertion is apt to be indulged in, the more so as the advice to keep the skin active in order to relieve the kidneys of some of their work usually includes the prescribing of a certain amount of exercise. Such exercise, however, must be taken regularly, must begin very gently, and only become more prolonged by degrees and under the careful supervision of the physician so that it may be modified before it causes a deterioration of the secretion of urine. Even diseased kidneys may be trained to excrete considerable amounts of the products of muscular metabolism, but the burden of excretion must not be thrown on them suddenly and without preparation.

## ECHOES AND NEWS.

**Lawson Tait Dead.**—It is reported from London that Dr. Lawson Tait died suddenly at his home, June 13th. Dr. Tait was in his fifty-fifth year.

**Ophthalmia among Immigrants.**—"Egyptian ophthalmia" is the most common of the diseases among immigrants landed at the port of New York. All who are found to be suffering from this disease are deported. In May 45,000 immigrants were landed, and of these 285 had granular conjunctivitis.

**Yellow Fever at New Orleans Suppressed.**—No cases of yellow fever have been reported from New Orleans since the one of May 30th. The Marine Hospital Service reports that the State of Texas has removed its quarantine against freight from New Orleans, which was promptly declared upon the announcement of the case of yellow fever occurring there May 30th.

**Dr. Cleveland's Case Reopened.**—A second examination of Dr. Trumbull W. Cleveland of 45 West Fiftieth street, who is charged with having caused the death of a child, Violet Carhart, on April 13, 1897, by prescribing improper medicine, has been begun in the West Fifty-fourth Street Police Court. Two indictments against Dr. Cleveland have already been dismissed for lack of evidence.

**The American Proctological Society.**—This society was organized at Columbus, Ohio, on June 8th. Its purpose is to study the diseases of the lower intestine. Among

its members are prominent specialists in the leading cities of the United States. Dr. Joseph M. Mathews of Louisville, Ky., the retiring President of the American Medical Association, was elected president, and Dr. James P. Tuttle of New York City, vice-president.

**Increase in Death-rate.**—According to statistics in relation to the death-rate, compiled by the New York City Health Board, there was an increase in the death-rate from diphtheria of one hundred per cent. for the week ending June 3d over the corresponding period of 1898. For the same week there was an increase in the total death-rate in the Boroughs of Manhattan and the Bronx of two per cent., and in Brooklyn for the same time 1½ per cent.

**Appointments in the Marine Hospital Service.**—Dunlop Moore of Pennsylvania and Halstead A. Stansfield of California were commissioned assistant-surgeons May 31, 1899. James C. Ballard of Mississippi was appointed acting assistant-surgeon, and stationed at Natchez, Miss., May 23, 1899. S. R. Thomas, H. W. Wickes, and H. S. Cumming have been commissioned passed assistant-surgeons; W. P. McIntosh has been commissioned surgeon.

**Red-Cross Nurses.**—The Red Cross Society for the Maintenance of Trained Nurses, which was organized as an auxiliary to the Red Cross Relief Committee, has issued an enlarged report of its operations, including the work done in the Philippines. On January 4th there was an unexpended balance of \$19,874.12, which was used in sending twelve nurses to Manila. The Society was organized on May 18, 1898, and its work officially closed on March 1st of this year.

**The Noble Red Man.**—The statement that "a full-blooded Indian lunatic never lived" has been accredited to United States Commissioner William A. Jones, who has been inspecting the site recently purchased by the Government near Canton, Indian Territory, for an Indian insane asylum. Mr. Jones states: "The occupants of the hospital soon to be opened will all be mixed breeds. Probably there never was a case of insanity in any tribe until the malady was introduced by mixing with the whites."

**A Stutterer Cured?**—Private H. E. Redwood, who is now serving in the Philippines, was, when he enlisted, so affected with stuttering that the recruiting officer was tempted to leave him off the rolls. At the battle of Mariquina he was shot in the face, the bullet passing through his mouth, and making its exit near the back of the neck. He recovered from the wound, and it is stated that he now stutters no more, and that he is busy completing the telling of stories which he has never been able to finish on account of his halting speech.

**Food Investigation.**—The New York State Board of Health will conduct an investigation regarding the adulteration of food products. For this purpose \$4000 has been appropriated. Dr. Willis G. Tucker, the State Chem-

ist, will analyze hundreds of samples of teas, coffees, flour, sugar, fruit syrups, baking powders, and other food products which will be collected during the next few weeks. Violations of the law prohibiting food adulterations will be reported to the District Attorney of the county in which the adulterated article is purchased.

**Obituary.**—Dr. Ezra R. Pulling died on June 5th at his home, 84 Washington Place, New York City. He was seventy-one years old. He was graduated from the College of Physicians and Surgeons in 1853; he served in the Civil War as a surgeon, was a member of the staff of the Lying-in Hospital, and was a member of the Physicians' Mutual Aid Association.—First Lieutenant William B. Westredge, Surgeon, United States Army, died at Manila on June 10th of typhoid fever. He was graduated from Rush Medical College, Chicago, in 1896.

**Cancer Mortality.**—The great increase in the mortality from cancer in Great Britain has led to the formation of a society to combat the disease, at whose initial meeting in London on June 7th it was pointed out that the number of deaths from cancer in New York City has doubled during the last ten years, and that it is calculated, if this increase is maintained, there will be more deaths from cancer in 1909 than from consumption, smallpox, and typhoid fever combined. In Great Britain during the past ten years the ratio per million has risen from 385 to 787.

**Dr. Woodbury's Mission to Germany.**—On June 8th it was reported from Washington that Dr. John McG. Woodbury of New York, lately Chief Division Surgeon of Volunteers, United States Army, and acting chief surgeon of the army in the field, and who is at this time Clinical Professor of Orthopedic Surgery in the Cornell University Medical Department, has been designated a Commissioner on behalf of the United States of America for the purpose of observing and reporting upon the medico-military organization of the German Army in active operation during the autumn maneuvers.

**Sanitary Work in Havana.**—Captain Weber, in dredging the upper end of the harbor of Havana, has cut a 200-foot channel, and a hundred-years' accumulation of old Spanish dumpage has been removed from the Santa Cataline branch of the harbor. This former yellow-fever breeder has been thoroughly cleansed, the shore scraped, and the deposit taken out to sea. Some 10,000 barrels of lime have been used. The army health report for the city of Havana is very gratifying. Less than two per cent. of the 2000 men are sick. This is a better average than is usual anywhere in the United States.

**Cornell's Medical College Commencement.**—The first commencement exercises of Cornell University Medical College were held in Chickering Hall, New York City, on June 7th. There were fifty-eight graduates. Ten of these were women, of whom two were among the ten "honor men." Gratitude was expressed toward Colonel Oliver H. Payne for his gift of \$1,500,000 for a building, which will enable the college to become one of the best

equipped institutions for medical instruction in the world. This building is now in course of construction at First avenue, Twenty-seventh and Twenty-eighth streets.

**The Status of Electricity in Gynecology.**—In the discussion before the Obstetric Section at Columbus recently the following opinions were expressed: Dr. Wathen of Louisville: "I think electricity has done untold harm. The treatment that we ought to develop for myomatous tumors of the uterus is that of myomectomy." Dr. Reamy of Cincinnati: "I call a halt to the denunciation of electricity in these conditions, and I protest against the dogmatism that denounces everything that is not surgery as unscientific." Dr. Marcy of Boston: "I am sorry to cross swords with my friend Reamy. In the observation of a large number of cases under the treatment of electricity I have not found a single patient whom I thought materially benefited."

**Camp Crematories.**—Latrines in military camps have always been both conspicuous nuisances and prolific sources of disease. Dr. G. W. Bissell of the Seventy-fourth Regiment, Buffalo, New York, has made a study of the conditions in the various camps last summer that produced the outbreaks of typhoid. Since then he has perfected a plan which he expects will obviate the dangers to health resulting from the use of latrines. During the practice marches which are to be made from the Peekskill camp of instruction in the week beginning June 12th, no sinks will be dug, but instead light portable furnaces, in which almost any substance can be cremated in a few seconds, will be employed. If successful this system will very likely revolutionize military camps.

**Another International Congress.**—An international congress for childhood will be held in Buda Pest, Hungary, during the latter part of September, 1899. It will continue through five days, and there will be five sections. The medical section will be presided over by Dr. Bokay Janos. The questions proposed for discussion are: (1) The hygiene of the infant in the family; (2) the care of foundlings, morally abandoned children, or paupers; (3) the care of sick infants and of those with bodily defects; (4) places for play and recreation; (5) school hygiene; (6) the hygiene of minor children employed in factories and other establishments, and (7) alcoholism. In addition there will be sections having no immediate connection with medicine—judicial, pedagogic, charitable, and philanthropic.

**Dr. Kohler's Paper on Tuberculosis.**—At the International Congress at Berlin for the prevention and cure of tuberculosis Dr. Köhler stated that in Germany phthisis pulmonalis is responsible for 2.25 and, including various other diseases of the respiratory tract, which he considers generally due to tuberculosis, for 4.9, out of a total mortality of 21.8 per 1000 annually. Of the various countries of Europe, England, Belgium, the Scandinavian countries and Italy, show the lowest, and Russia and Austria, the highest mortality from consumption. In England, the actual death-rate is only 1358 per million, as



against nearly 4000 in Russia. Of the fourteen largest civilized cities in the world London has the lowest mortality from consumption, with the exception of Naples and Buenos Ayres, the highest mortality being shown by Moscow, St. Petersburg, Vienna, and Buda Pest. Statistics fail to show that elevation above the sea-level has any effect on the spread of tuberculosis, but the percentage is higher in towns and industrial districts than in the country. Tuberculosis is more destructive to males than to females, and, compared with other diseases, is responsible for the largest number of the deaths that occur between the ages of twenty and thirty.

**American Medical Association.**—The officers for the ensuing year are as follows: President, Dr. W. W. Keen of Philadelphia; first vice-president, Dr. Charles A. Wheaton of Minneapolis; second vice-president, Dr. E. D. Ferguson of Troy, N. Y.; third vice-president, Dr. J. M. Allen of Liberty, Mo.; fourth vice-president, Dr. W. D. Middleton of Davenport, Iowa; treasurer, Dr. Henry Newman of Chicago; secretary, Dr. George A. Simmons, editor *Journal of the American Medical Association*, Chicago; librarian, Dr. George W. Webster of Chicago; chairman of committee of arrangements, Dr. Philip Marvell of Atlantic City; trustees of the *Journal of the American Medical Association*, Dr. E. E. Montgomery of Philadelphia; Dr. H. L. E. Johnson of Washington, D. C.; Dr. C. A. L. Reed of Cincinnati. Judicial council: Dr. J. W. Griffith of Kansas City; Dr. J. E. Cook of Cleveland; Dr. J. H. Baillache of Washington, D. C.; Dr. J. B. Lewis of Topeka, Kan.; Dr. F. H. Wiggin of New York City. Address on general medicine at the next meeting of the Association, Dr. J. A. Witherspoon of Nashville, Tenn.; on surgery, Dr. W. L. Rodman of Philadelphia; on State medicine, Dr. Victor C. Vaughan of Ann Arbor. The place of meeting next year will be Atlantic City, N. J.

## CORRESPONDENCE.

### THE MEDICAL STUDENT ABROAD.

To the Editor of the MEDICAL NEWS.

DEAR SIR:—For years it has been more or less a practice among American medical men of means and ambition to pursue, after the usual medical education of this country, a period of post-graduate work in some of the medical centers of Europe. That there has been in the past even greater advantage in such a practice in broadening and impressing professional attainments there can be no doubt; but even at the present day, although American schools and American methods are well in the van of progress, much may be gained by even the best educated American physician through a careful comparative study of foreign work, foreign medical ways and manners of doing, and foreign ideas. If for no other reason the writer would wish that every American physician might go abroad to learn how really well American medicine and American institutions compare with the best abroad.

In many particulars America is distinctly in the lead; yet there are unquestionable advantages offered by this or that foreign center. Even were the advantages not as great the broadening of our field of vision by comparison of ideals among teachers, methods, and schools, will amply repay considerable time and sacrifice by its effects upon future estimates of such men and matters. Then, too, the general mental broadening and culture to be had by travel, by association with other types, constitute a most valuable addition to any man's education.

While the absolute necessity for it no longer obtains as it once did, there is sufficient general and special advantage in the tendency of our profession to thus flock to the older centers of medical and general education; and it is probable that for years to come there will be the usual number of Americans annually moving on the docents and agrégé of Germany and France.

When should one go to Europe to obtain the best possible results? Of course one may obtain some advantage at any time; but unquestionably the more fixed the principles the more may time be devoted to the niceties and details, so readily acquired in such places as Paris, London, Vienna, and Berlin.

Surely such a professional pilgrimage had best be postponed after graduation until at least a full year's internship in a good hospital or several years' work in general dispensary and private practice has been experienced. These will have fixed one's basic data and will have brought forward one's deficiencies clearly, thus permitting a reasonable selection of the special character and amount of work required or desirable in European institutions.

One goes to Germany, Austria, France, or England, or to all if the time permits. If in the spring, one had perhaps best go to Germany for it is possible to find some place to work during all the summer in some of the smaller University towns, or even in Berlin for that matter.

If time be valuable it is well to push on to Vienna by the middle of September. One need not have letters in Vienna; but go to the General Hospital and watch for men who do not raise their hats in saluting; address them in English, for they are Americans (or Englishmen), and they will give all the information required about work desired. I believe that we Americans are greatly over-rating Germany and Austria, and that we are losing sight of Paris as a great medical center. We attach too much importance to the mathematical results of the Germans, results which are unfortunately often as fallacious as statistics. We fail to recall that France has produced more master-minds in medical science than any other nation, and that the flocking of medical students from all over the world to Paris would indicate that in other countries at least Paris is regarded as the equal of Germany. Then, too, work in the hospitals in Paris is more useful to us, because the French, like the Anglo-Saxon, regard therapeutics as of very great importance, and the sentiment and desires of the patient count for something. When we come home to practise we want results, and neither we nor our patients can be satisfied by simply proving a scientific theory, with no consideration for the

future condition of the client. Another great advantage in favor of Paris is that one learns the language; a very valuable acquisition. In German countries many Americans never get beyond the essential dialogue with the "kellner," because the German teacher, who lives chiefly by American dollars, always knows enough English to satisfy his client; and the habit of monopolizing courses by small American syndicates makes it essential that the American student hold his American friends. Therefore, they speak English too frequently and German too little to learn the latter. I have known many American students to live in German countries for a year on a vocabulary of 100 words.

In Paris one does not need American friends; in fact is better off without them. Letters should have been obtained to Parisian doctors, and if ever needed, their help may be readily obtained; and the medical visitor will not find the hands of professors extended for guildens and marks. Any one may hear the greatest professors in Paris as easily as can the Matriculate of the University of Paris. Arrived in Paris it is best to go to a hotel in the Latin Quarter, a most convenient and congenial place in which to live. It will be well to get a "Guide Médical à Paris" from one of the medical book-stores in which the quarter abounds; after which it is the proper thing to take one's diploma to the secretary's office in the Faculté and ask for a student's card. This will give admission to any lecture, clinic, or demonstration given under the auspices of the Faculté. The card will not be asked for often (maybe never), but it is better to be armed for a possible demand. On Boulevard St. Germain No. 166, there is an excellent reading-room (Salle de Lecture of *La Médecine Moderne*), where all the principal medical journals of all countries may be had from 9 A.M. to 11 P.M.; and to which a permanent card of admission may be obtained on presentation of visiting or student's card. The library of the Faculté is open afternoons and evenings to every one.

If one does not know French on going to Paris it is best not to be too dignified. Students profit more by accepting the freedom accorded them in Paris; meals should be taken in some small restaurant and one should talk to his table companions. They are always agreeable and often quite useful, and one will find that in a few weeks he is speaking the language well enough to be understood, and understanding French quite well. Working in some special line one will naturally select places of study where such specialties are given prominence. One may obtain a desk in the Pathological Laboratory of the College de France on application and without cost except for materials used, where a microscope may be kept and opportunities afforded for any pathological or bacteriological work. This is a decided advantage for any one desiring to carry on laboratory work in connection with his clinical observation. A small fee to nurses and porters will obtain any material desired from clinics and post-mortem examinations. It is true that one has not the same facilities for work in pathological anatomy as in Vienna or some German towns, but the present attitude of Professor Brouardel, dean of the

Faculté, will undoubtedly work an efficient change in that direction in the near future, his plan being to establish a pathological laboratory in every hospital in Paris. At present the laboratories in the Hôpital Necker, Hôpital Dieu, Salpêtrière, Charité, Pitié, and St. Louis are well equipped, and privilege and admission to work may be obtained on proper introduction. The great demand on the Institute Pasteur makes it difficult to obtain a place in that institution, unless application is made at least a year beforehand; however, a strong letter to one of the directors will seldom fail to procure a place for an American. There is certainly no better course in bacteriological technique given in the world, and it goes over the whole field of theoretical, practical, and experimental bacteriology. It is conducted by the great masters Roux and Metchnikoff, and other specialists in selected subjects.

If one has not been able to obtain a place for work, the demonstrations and lectures may be seen and heard daily without any formalities whatever.

For one desiring experience in genito-urinary work a place with assignment to a table where treatment is executed under the direction of the Chief of Clinic may be easily obtained in Professor Guyon's out-clinic, where one may become familiar with the methods and practices of this great specialist at first hand.

The Salpêtrière with its specialists for every branch of the science of neurology certainly cannot be excelled anywhere. In Charcot's clinic, conducted by Professor Raymond, the classical instruction instituted by the great master is still given in the same interesting manner. Here too one may follow the courses of Déjerine and the brilliant young psychologist, P. Janet, who conducts a clinical course in supplement to his classic lectures given at the College de France. Besides these there are a number of neurologists here and in other institutions who have made special and valuable study in various lines.

The St. Louis clinic and wards give one a superabundance of any variety of skin diseases, and the museum and library contain the finest collection of models and literature pertaining to this subject in the world.

In eye work students may obtain positions as assistants and places in the Pathological Laboratory under the celebrated oculist, Panas, in the Hôpital Dieu.

In the Hôpital des Enfants Malade one may find an enormous wealth of material in all children's diseases, including infectious diseases, with special instruction in intubation and laryngotomy.

Work in medicine, surgery, and gynecology is abundant and found in all the hospitals. The guide and bulletin of *La Médecine Moderne* give the exact hours of the lectures and the names of the lecturers in all the hospitals and institutions. Other places of equal and perhaps superior advantage may be obtained in some of the many institutions. I have simply named these as the first in my mind.

In Paris one has simply to follow the accepted methods on entering the courses; it costs nothing, but he cannot have the manner of instruction changed to suit his American ideas as he may in some of the German places. One must go along with the Frenchman in his ways, and if

one adapts himself to these easily he will obtain the best results.

WILLIAM GAMMON, M.D.

GALVESTON, TEXAS,  
June 9, 1899.

### OUR PHILADELPHIA LETTER.

[From Our Special Correspondent.]

THE QUESTION OF THE REMOVAL OF THE MUNICIPAL HOSPITAL—JENNER'S STAIN FOR BLOOD—FILTERS FOR THE PUBLIC SCHOOLS—LUCIEN MOSS HOME FOR INCURABLES—PREVALENCE OF CEREBROSPINAL MENINGITIS AND ENTERIC FEVER—CHANGES IN THE MEDICAL FACULTY OF THE UNIVERSITY OF PENNSYLVANIA—DR. S. WEIR MITCHELL.

PHILADELPHIA, June 12, 1899.

WHILE every one agrees that the Municipal Hospital for Contagious Diseases should be speedily removed from its present location in a built-up residence section of the city, the question of its actual removal excites such apprehension in the minds of the citizens in whose neighborhood it is proposed to build the new institution, that the problem seems no nearer solution than it has been at any time during the past two years, when the change was first seriously contemplated. This week a committee of citizens from the northwestern section of the city, where the Municipal Hospital is situated, was organized to urge its speedy removal from their neighborhood, but other committees are springing up with equal alacrity, to protest against its being situated in their part of town. Nobody wants the pest-house near them, and arguments and counter-arguments are launched with such rapidity by various interested citizens, that the authorities are bewildered, and hesitate to act. Meanwhile, the hospital continues its work of caring for the infectious and contagious diseases of the municipality as best it can, cramped as to space, ill-equipped in many ways, and altogether handicapped for the important work it was designed to perform. The only way to settle the question seems to be for the city to make up its mind to immediately purchase land in an isolated section of the city, unlikely to ever be used as a residence part of town, and to there erect a large and modernly equipped hospital for the reception and care of contagious cases.

Although announced in the *Lancet* some four or five months ago, by its author, but little attention seems to have been paid to the question of blood-staining by Jenner's method. The simplicity of the stain for clinical purposes, its wide range of application in hematology, and the dispensing with heat for fixing the blood-films, so important for rapid clinical work, should fully atone for the difficulties of its preparation. For the past two months Jenner's stain has been used in the medical clinic of the Jefferson Hospital, and in the laboratories of the German Hospital, for differential counting, with uniformly satisfactory results. The stain should be made as follows: *Solution A.* Eosin (water soluble) 1.2 to 1.25 grm., distilled water 100 c.c. *Solution B.* Methylene blue (zinc free) 1 grm., distilled water 100 c.c. *Solution C.* *Solution A.*, *solution B.* equal parts. Stir thoroughly with a glass rod, and set aside for 24 hours. Filter, and dry

the residue in an incubator. Scrape the residue off the filter-paper, and wash on the filter, after shaking up with distilled water. (The washing should be of a thin, dirty, purplish color.) Dry powder, and preserve in suitable bottles.

*Solution D.* (To be used for staining.) Powder from *Solution C.*, .5 grm., methyl alcohol (pure), 100 cc. Mix and filter. To stain spread the blood-films in the usual way; dry in air, without thermic or chemical fixation; cover the film with the stain for from one to three minutes; wash in distilled water until the cover-glass is a faint pink color; and dry, mount in xylol balsam. The erythrocytes are colored terra cotta; nuclei of the leucocytes, blue; neutrophilic granules, red; basophilic granules, dark violet; blood-plaques, mauve; and all bacteria, malarial organisms, and the embryo of the filaria sanguinis hominis, blue.

Provision having been made by the City Councils to expend a sum of \$37,000 for placing a system of filters in the public schools, the authorities are now engaged in considering the proposals which have been submitted to them for installing the apparatus. The provisions of the ordinance for the adoption of the new filters stipulate that they shall have the approval of the Board of Health, must be capable of removing ninety-five per cent. of bacteria from the water, and shall be subject to a rigorous practical test before acceptance. It is proposed to equip every school-house in the city with a complete set of apparatus before the opening of the next term in September.

Ground will soon be broken for the erection of the new building of the Lucien Moss Home for Incurables, a branch of the Jewish Hospital. The new building will be of fire-proof construction, four stories high, and built after plans secured in Berlin, of a famous German sanatorium. The institution will be ready for the reception of patients in the fall.

Inasmuch as the weekly statistics of the City Health Department, through the peculiar orders of the Director of Public Safety, are no longer available to the public, information concerning the prevalence of infectious diseases must be derived from the figures published monthly by the State Health Board. Last month's report from this body would seem to indicate that cerebrospinal meningitis prevails to a dangerous degree in this vicinity, there being 22 cases existing in this city at the time the report was made public, with a total of 14 deaths during the preceding four weeks. Enteric-fever cases numbered 412 for the month, of which 58 were fatal. Judging from the large number of yellow signs required by law on infected houses, one sees throughout the city, and from the recent decrease in the population of the public schools, scarlet fever and other infectious diseases are also numerous. According to unofficial newspaper reports, during the week ending June 10th, there were reported 95 new cases of enteric fever, with 21 deaths; 85 cases of diphtheria, with 12 deaths, and 21 cases of smallpox, without fatality.

As forecasted two weeks ago, the changes in the medical faculty of the University of Pennsylvania in consequence of the death of Dr. William Pepper, were officially declared by



the trustees during the present week. Dr. James Tyson has been elected professor of practice of medicine; Drs. John H. Musser and Alfred Stengel, professors of clinical medicine, and Dr. Gwilym G. Davis, assistant professor of applied anatomy.

Dr. S. Weir Mitchell, who has been absent in Europe for several months past, arrived in this city this week, and will immediately leave again for his summer home on the New England coast.

### OUR LONDON LETTER.

[From Our Special Correspondent.]

CONGRESS ON TUBERCULOSIS—CONSULTATIONS BY WHOLESALE—AMBULANCE ACCIDENT EXTRAORDINARY—"DEATH FROM TIGHT BOOTS"—REDUCED DEATH-RATE IN INDIAN ARMY—CANARIES AND TUBERCLE—PSEUDO-TUBERCULOSIS—FAILURE OF THE INEBRIATES ACT.

LONDON, June 5, 1899.

THE principal medical interest of last week centered in the great Congress for the Prevention of Tuberculosis, which occurred in Berlin, opened by the German Secretary of State and attended by the Empress in person. Next to the Peace Congress it was the chief point of interest of the day in all circles, lay as well as professional. Much gratification and surprise, even in the profession, is expressed at the unexpectedly high standing of England in the geographical distribution of tuberculosis as set forth in Dr. Köhler's opening paper. Her death-rate is the lowest in Europe, and that of London the smallest of the fourteen largest cities in the civilized world, with the exception of Naples and Buenos Ayres, neither of which would really seem to have any right in the same class with her. This seems an emphatic refutation of the popular impression that tuberculosis is a disease of civilization, and as such, one of its necessary accompaniments. The real condition of importance is the type of the civilization and the *higher this is the lower will be the death-rate*. It is no mere coincidence that clean, sanitary England, densely populated as she is, heads the list, while filthy, undrained, unventilated, unwashed Russia, with her population scattered through a thousand reeking villages stands at the foot with nearly four times the death-rate.

There seems to be one city in England that can keep its hospital fund up to a successful level, and that is Birmingham. The results of her Hospital Saturday collections last year reached the handsome total of \$88,000. But all success has its undesirable side and there are murmurs, not loud but deep, especially from the profession, that this victory has been won at the expense of an extensive "hospitalization" of the well-to-do working classes, who are being led to regard the hospitals as a sort of sick club, to whose advantages they may acquire a right by a subscription of a few shillings per annum. And flushed by its success the Fund Committee is proposing a new and hitherto unprecedented departure which has already brought a storm about its ears. This is nothing less than a sort of wholesale consultation company, by which it is proposed to bring expert medical

opinions within the reach of the masses. The plan proposed is to hire two medical experts, a physician and a surgeon, at a proposed salary of \$2500 a year each, furnish them with a joint office, and advertise "consultations at all hours" for the modest sum of half a guinea (\$2.50) each. This astonishing scheme is calmly announced as "likely to yield a handsome profit," but if not, the still more astonishing committee that hatched it proposes to make good two-thirds of the deficit from the hospital fund!! Comment is superfluous. Not content with robbing the struggling young practitioner of his artisan practice, they would deprive him of the fruits of his hard-earned reputation for special skill in the shape of consultation fees. It is to be hoped that the scheme will fail of realization, if from no other cause, by inability to find men of any reputation and competence so lost to the sense of the dignity of their profession as to accept a position as hired consultant.

Much as the discovery of Koch's bacillus may have done for consumption it has certainly added a new hardship to the lot of the consumptive. From South Africa comes the news already familiar to us in California that employers of labor are refusing to engage consumptive applicants on the ground of danger to their customers or goods. Boarding-houses and hotels are objecting to receive them as inmates, and passengers are refusing to take state-rooms on board ships which are believed to have been occupied by tuberculous patients traveling in search of health. At this rate these poor unfortunates will soon become absolute pariahs and made to feel that their terrible disease is as much of a disgrace as of a misfortune.

Another painful illustration has just occurred of the singular tendency of officialdom, unchecked, to callousness, not to say brutality. A patient seriously ill with bronchitis and heart-mischief was ordered taken by ambulance to the hospital. The vehicle came in charge of an ignorant boy, with no assistant, and the poor patient was let fall upon the stairs in the effort to get him into it. Then it drove off at such a speed that in spite of the frenzied remonstrances of the victim's wife, who accompanied him, an attack of heart-failure was brought on by the jolting and the patient was dead when the hospital was reached. And the coroner's jury merely said that the ambulance-service was "*unsatisfactory*" and advised the supervisors to be more careful in future to send competent drivers.

The General Medical Council, the official High Court of the English profession, meets this week and as this is its first full session since the disgraceful Hunter case some stirring scenes are anticipated. The Penal Committee seems likely to be severely criticized, if not formally censured for its dishonorable zeal. Action will also probably be taken on the relation of the profession to friendly societies and sick clubs, for since the latter organizations, at their recent meeting, rejected the olive-branch held out to them by the profession, by absolutely refusing to fit any wage- or income-limit to their membership, it seems as if aggressive combination is the only hope of the doctor.

Truly the headline is a wonderful agent of science. The papers recently have had much to say under the gruesome heading, "*Death from Tight Boots*," which on inspection is found to be anent a man at Bradford, who was taken into a hospital for a varicocele operation. The operation was well borne and recovery rapidly progressing when his temperature suddenly rose, spasms followed, and death by tetanus closed the scene. Upon examination the operation-wound was found soundly and securely healed and no other lesion was found until after a careful search a small, partially healed ulcer on the dorsum of one of his toes was discovered. This, which had resulted from a tight boot, was believed to be the point of entrance of the tetanus infection. Cultures, however, from both this and the operation-wound yielded only negative results. The man was in perfect health, indeed was seeking operative relief from his varicocele to qualify himself for enrolment in the police force, to which this was the only hindrance.

Quite a hopeful and reassuring contribution to the tropical colonization problems of both Anglo-Saxon races has just been made by a report of the War Office here. In this the death-rate of the English Army of Occupation in India since 1840 is given and a most gratifying decline shown. Previous to 1857 the average rate was 60 per 1000 living per annum, simply murderous for vigorous male adults; in 1896 it had fallen to 14.8 per 1000, or less than one-fourth of the previous figure. This is about equal to the general mortality of a healthy country district, and only some 4 or 5 per 1000 above the ordinary garrison rate at home.

A rather sensational article upon canaries as a source of tuberculous infection by Dr. Tucker Wise appears in the *Lancet*. Some thirty cases of such transference are described, but as the principal proof of connection in nearly all of them is merely the statement that birds were kept in the house its conclusiveness obviously leaves something to be desired, especially as he closes with the statement that experts estimate that 400,000 canaries are kept in England alone.

From New South Wales comes a cordial appreciation and corroboration of the work done by the pathological staff of our Department of Agriculture upon the nature and treatment of Texas fever. Indeed the new name of "Tick fever" is proposed for it in allusion to its means of spread, first discovered by our Washington investigators.

An important note has just been issued by the London Pathological Society upon the nomenclature of pseudo-tuberculosis. In accordance with the report of a special committee they recommend that in future the term "tubercle," as applied to anatomical lesions, be dropped and the term "nodule" substituted, reserving the term "tubercle" and "tuberculosis" solely in their clinical sense as designating the conditions resulting from infection by Koch's bacillus. By this change "tubercular" and "pseudo-tubercular" lesions of all sorts will simply be known as "tuberculous nodules," "glanders nodules," "aspergillus nodules," as the cause may vary. As there are no less than fifteen different forms of "pseudo-tuberculosis," and even four of five "pseudo-

tubercle bacilli" this change would avoid much confusion.

A most suggestive study has just been made by Professor James Ritchie upon the relation between the activity of germicides and their molecular composition. He finds a curiously constant relation between the germicidal activity of elements and their atomic weights, the lighter, such as sodium and calcium, being almost inert, while the heavier, such as mercury and bromine, are extremely active. The same rule extends to their salts and to the salts of the organic acids which vary according to their molecular weights. Acids vary according to their chemical "avidity" or "displacing power." The increasing activity of the heavier elements is most significant when it is remembered that nearly all known elements can be arranged in a curious progression-series according to their atomic weights, which would again run parallel with their boiling-points and other characteristics.

Hull has just been suffering from an incipient smallpox epidemic brought there by passengers of the steamship "Port Darwin" from Alexandria. Thirty-seven cases in all occurred before the outbreak could be surrounded and stamped out by the health authorities. Only four patients died, three of whom were unvaccinated, and the only proof of vaccination in the fourth was a dim and not at all characteristic scar.

An unexpected danger threatens the London School of Tropical Medicine. It has been discovered by the energetic member that it is within hacking distance of his little hatchet. Last week in Parliament one of him solemnly rose and proposed that the School ought to undertake, at once, a study and explanation of the nature of arrow-poisons! The suggestion was taken under advisement and a week or so later the Colonial Secretary replied in the House, that inasmuch as only one case of such poisoning had been brought to his notice in the past five years, he thought there were other problems which might be regarded as more immediately pressing.

It looks seriously as if the Habitual Inebriates Act of last year, providing for their permanent detention in reformatory institutions after a certain number of convictions, were going to prove a failure. The sole cause is the unwillingness of county authorities to contribute the funds for their maintenance in such establishments. The magistrates are willing to sentence and various philanthropic organizations have supplied buildings in which they can be cared for, but the penuriousness of the county councils seems likely to block the reform, which was such a welcome concession to our professional view of drunkenness.

#### TRANSACTIONS OF FOREIGN SOCIETIES.

German.

DIFFICULTIES IN SWALLOWING AND THEIR AVOIDANCE—INJECTIONS OF GELATIN IN ANEURISM AND FOR HEMOPTYSIS—TUBERCULOSIS OF THE THORACIC DUCT AS A SOURCE OF MILIARY TUBERCULOSIS—LUPUS OF THE NOSE AND ITS TREATMENT BY HOT-AIR CAUTERIZATION—HEMORRHOIDS A GENERAL DISEASE—THE SPREAD OF ANCHYLOSTOMA DUODENALE.

AT the Union for Internal Medicine, April 24, 1899.

MENDELSON and GUTZMANN spoke of swallowing in the different positions of the body and its significance. Difficult swallowing may affect the prognosis in sickness by limiting the amount of nourishment received, by causing pneumonia, or even death in children, from inhalation of fluids into the bronchi, and by the increased blood-pressure caused by the coughing to expel foreign material. This may cause heart failure in cases of cardiac weakness, and aneurism or hemoptysis in pulmonary disease. Experiments showed that a normal soft palate and epiglottis can completely close the upper and lower air passages during swallowing, even though the act be performed when the patient is lying down or even standing on his head. The trouble experienced in swallowing in a horizontal position is not due to imperfect closure, therefore, but in part to attempts to breathe at the same time (and this may be avoided by forethought) and in part to the fact that the posterior part of the throat is far more sensitive than the sides and anterior portion, and hence reflex action is much more likely to follow if a person tries to swallow when lying on his back. The practical conclusion is that bedridden patients should swallow lying on the side, rather than in dorsal decubitus, even though the head be slightly raised.

FRAENKEL showed a patient with aneurism of the aorta whom he had treated by injections of a one-per-cent. solution of gelatin in normal salt solution. The injections were at first very painful, but the patient afterward became accustomed to them, and they were given twice a week. A two-per-cent. solution excited far greater pain. The results of treatment were gratifying. By the X-ray it was seen that there were two large sacs of the aorta, one of which had eaten away a spot in the sternum as large as a quarter of a dollar. After some weeks' treatment one of the sacs had disappeared entirely, the sternum no longer bulged forward, and pulsation was much less. During the whole time the patient remained in bed, but received no medicine.

KLEMPERER said that he had tried the method with two patients, but that one gave up the injections on account of pain. The second patient kept on until eight injections had been made, but the result was doubtful.

BURCHARDT had tried the injections in a number of patients for hemoptysis. None of them has as yet died, but he did not feel justified in saying that the injections had had any favorable influence upon them.

At the Berlin Medical Society, April 26th, BENDA showed two preparations of tuberculosis of the thoracic duct, as illustrations of his theory that tuberculosis of the thoracic duct is the source of miliary tuberculosis. As the tubercles in the duct in both cases were very abundant, and in various stages of development and decay, there seemed no doubt that they contained a sufficient amount of infective material to account for the miliary tubercles. The origin of the thoracic tuberculosis was in one instance retroperitoneal lymph-glands, and in the other retroperitoneal, mesenteric, or mediastinal glands, all of these being affected with tuberculosis; but in neither case was there a direct spread of tuberculosis from an adherent gland into the thoracic duct.

HOLLAENDER denied that lupus of the nose leads to destruction of the organ. If left to itself it goes on to form tubercular spongy granulations, which, however, show no tendency to fall to pieces. Lupus of the skin rarely spreads to a mucous membrane, so that nasal lupus is almost invariably a primary affection. If the diseased area is small, excision is the best treatment. If it is more extensive it may be treated by Finsen's method or by that of Röntgen, or, as he preferred, by the application of hot air, a stream of air at 300° to 400° C. (572° to 752° F.) being directed upon the lesions. As a result the diseased tissue, with its contained bacilli, becomes necrotic and is cast off. A number of patients were shown who had been cured of extensive areas of lupus by this method.

LASSAR said that he had become very dissatisfied with the excision of lupus of the nose. Unfortunately, patients were not seen until the disease was well started, and when repeated operations had removed the whole nose and a new one had been built up, it too generally became affected by the lupus. The hot-air treatment he had used upon thirty patients during the past year, and he thought the possibility it affords of burning away the diseased tissues, while not disturbing the healthy ones, is a great therapeutic gain. The degree of cauterization which succeeds best must be learned by each operator. In the beginning he was inclined to go too fast. As a result deep ulcers were formed which took weeks to heal. The principle of heat can also be used in the thermocautery by passing the point close to the mucous membrane without touching it. The hot air is so painful that narcosis is necessary.

At the Vienna Medical Club, April 26th, FEDERN spoke of hemorrhoids and the predisposition to them. The ancient idea of hemorrhoids as a general disease to be treated by constitutional measures has given place to the idea that they are a local trouble to be cured surgically, and the good results which follow operations support this view. In the opinion of Federn these good results are rather to be attributed to the changed mode of life which follows such operations than to the operations themselves. The high tension in the blood-vessels is the real cause of the trouble. This produces congestion in the veins, and the well-known symptoms follow. Certain persons, either by heredity or otherwise, exhibit a predisposition to hemorrhoids, but without the high-blood pressure they would not develop them.

At the Imperio-Royal Society of Physicians of Vienna, May 5th, GOLDMANN related his experiences with anchylostoma duodenale. This parasite was originally confined to Brazil, India, Borneo, and Egypt, but at the time the St. Gothard tunnel was dug it was found to be the cause of the "tunnel sickness," and since that time it has been spread by the wandering of the mountaineers to almost all the mountainous districts of Europe. The symptoms of the disease were also spoken of. The prognosis is in general good, but is worse the farther north the patient lives. Extract of felix mas has been found to work admirably in expelling the worms, especially if given in divided doses, preceded by calomel, and followed



by calomel and turpentine. There are undoubted spontaneous cures, but on the other hand the parasite has been known to live for six years, and in cases of so-called spontaneous cures the eggs can usually be demonstrated in the stools of the patient.

## SOCIETY PROCEEDINGS.

### AMERICAN MEDICAL ASSOCIATION.

*Fiftieth Annual Meeting, Held at Columbus, Ohio,  
June 6-9, 1899.*

(Continued from page 752.)

#### GENERAL SESSION.

#### THIRD DAY—JUNE 8TH.

PROMPTLY at 11 A.M. the President called the meeting to order, and, as had been resolved the day before, announced the first business to be the reading of the report of the Board of Trustees, which had not been presented at the preceding general session because of the scanty attendance at the end of the session owing to the heat. Certain important business contained in it made it advisable that as many members of the Association as possible should hear and take action on it.

The minutes of the Association having been kept in the past irregularly, that is, without the order and signatures necessary to make them the valid minutes of the Association in a legal sense, and the fact that the secretary resided in one city while the *Journal* of the Association was published in another and distant city having led to delays in the publication of the official accounts of the proceedings of the Association, as, for example, those of the Denver meeting last year, the Board of Trustees, to whom a motion increasing the secretary's salary had caused the reference of the whole matter, thought it better to recommend to the Association the election of the editor of the *Journal* as official secretary, making him responsible for all the business connected with the office. The present secretary arose on a question of privilege, and explained that the minutes had been kept in accordance with the custom of his office, and the delay referred to last year had been caused by the dilatoriness of the chairman of a committee in sending in his official report. DR. HAPPEL for the trustees explained that there was no personal animus in the matter, and the only idea of the trustees was to establish a secretaryship that would at once facilitate the business of the Association and of its *Journal*, and at the same time make it responsible.

On motion the recommendation of the Board of Trustees that the editor of the *Journal* of the Association become the secretary of the Association without increase of salary was adopted.

The recommendation that a committee be appointed to codify the constitution and by-laws, and have them printed before the next meeting of the Association, was adopted.

The recommendation that a legislative committee be appointed composed of one member each from Washington, Baltimore, and Philadelphia, their expenses not to exceed \$250, to be paid out of the funds of the Association

on vouchers from the local member of the Board of Trustees for the district was adopted.

On motion of DR. HAPPEL of the Board of Trustees the retiring secretary, DR. W. B. ATKINSON of Philadelphia was placed in charge of the bureau of registration at the annual meetings of the Association. He shall be in attendance twenty-four hours before the opening of the annual meeting, and shall receive \$100 in addition to his expenses for this work.

The Committee of Public Health reported that the outlook for the passage during the next year of a bill creating a Government department of Public Health, with a cabinet minister at its head, was excellent. They asked for the moral support of the members of the Association and their influence with their Congressmen and Senators. They also asked that \$500 be appropriated to pay the expenses of a committee to properly urge the matter at Washington when the bill shall come up for consideration at the next session of Congress.

The Executive Committee reported as to the suggestions made by the president of the Association in his annual address.

First, as to the selection of a permanent meeting-place for the Association, Washington being suggested as the most likely place for the meeting; in the negative. The negative report was received with applause.

Second, that no clinics or entertainments shall be held at annual meetings that shall conflict with the regular business of the Association or its sections; reported favorably. On motion, the Association decided unanimously that such clinics or entertainments shall not be held in future.

Third, as to employing paid agents to solicit members for the Association; report unfavorable, as such means would be liable to secure an undesirable class of members.

Fourth, as to Government and State aid for the repression of tuberculosis; report favorable. On motion, the suggestion that a committee of five be appointed to draft a pamphlet setting forth the situation, to be sent to the President of the United States, to Congress, and the Governors and Legislatures of the various States was adopted.

Fifth, with regard to the repression of syphilis, the suggestion that the measures adopted by the congress on this subject to meet at Brussels next fall be carefully weighed by the American Medical Association, and the proceedings carefully followed by a special committee was accepted.

Sixth, with regard to vaccination it was decided to send to the various health boards of the country a pamphlet setting forth that it was the sense of the American Medical Association that compulsory vaccination was the safeguard of the country against smallpox, and as such must be fostered and enforced.

The special committee appointed to consider at the suggestion of a delegation from Philadelphia the question of the optician as a practitioner of medicine, reported that the proper fitting of glasses requires a knowledge of ocular pathology and therapy, and so must not be left to a mechanic, and that the American Medical Association

encourage by every means in its power the repression of the abuses that have crept in in this matter.

The report of the nominating committee was then adopted, electing the officers as given elsewhere in this issue.

A resolution was then offered deprecating the "leakiness" which this year had culminated in complete committeeal incontinence of the proceedings of the nominating committee before they had been presented to the Association, and making absolute secrecy obligatory on the members of the committee. On motion of DR. LOVE of St. Louis, who pleaded that the publication and discussion of the report before its presentation at the general session gave a favorable opportunity for the correction of errors, etc., the previous motion as to secrecy was laid on the table.

DR. J. C. WILSON of Philadelphia then delivered the address on Medicine'. Surgeon-General Sternberg then exhibited a series of stereopticon views illustrating the hospital-ships, hospitals, etc., of the Spanish-American War and since then, in this country, Cuba, Puerto Rico, and the Philippines.

Very striking views of the wards, the operating-rooms, and the arrangements of the various hospital-ships were shown and the fact demonstrated that the new problem of making a steam floating-hospital, with all the essential features of a modern hospital had been solved very effectively by the Medical Department. Transports were shown, the differences noted, and the fact that for these the Army Medical Department was not responsible but the Quartermaster's Department was brought out.

The present hospital at Camp Columbia, near Havana, at Ponce in Puerto Rico, and at Manila were shown, and it was made clear that the best possible arrangements, as far as climate and circumstances will allow, for the care of sick and wounded are in operation. The views of the convalescent hospital on Corregidor Island show an inviting place for patients to get well in, and illustrate the judicious care and solicitude that is directing present military medical affairs. All of these hospitals contain laboratories for the study of tropical diseases, so some progressive scientific work may be expected to issue from them as soon as conditions have become somewhat more favorable for study.

With regard to the employment of female nurses in the Army Medical Department General Sternberg took the occasion to remove a misunderstanding that seems to exist in many minds as to his position with regard to women nurses. He does not believe that they should accompany the column on the march when they are apt to be of hindrance rather than service, but just as soon as hospitals are established he believes that no better or more efficient aid could be found. Women nurses have done excellent work during the war. They were used in the first field-hospitals established and it is clear that they will be of service always if employed in hospital work.

SECTION ON PRACTICE OF MEDICINE.

SECOND DAY—JUNE 7TH.

The proceedings were opened by DR. ARTHUR EL-

<sup>1</sup>See abstract in last week's MEDICAL NEWS, p. 717.

LIOTT of Chicago who read a paper, entitled

#### TREATMENT OF THE HEART IN CHRONIC INTERSTITIAL NEPHRITIS.

The conditions met with are thickened and inelastic arteries subjected to the strain of a heightened tension, and a hypertrophied and sensitive heart-muscle. The patient is exposed to the risk of rupture of the vessels, and also to failure of the heart. Both the increased tension and the cardiac enlargement are compensatory, and any effort to qualify either may prove mischievous. There should be no intervention so long as there are no definite subjective symptoms. An increase of tension in the arterial system beyond the bounds of safety becomes manifest in dizziness, ringing in the ears, headache, disturbed cardiac action, fulness of vessels, occasional epistaxis, or it may be temporary emblyopia. A flagging heart shows in the soft, irregular, and frequent pulse. Dyspnea, post-sternal weight, and discomfort, cough on exertion, and diminished urine are additional signs.

All the small details and habits of the patient's life should be regulated, including the diet, clothing, exercise, and baths. The patient must be cautioned against heavy meals, and the regularity of the bowels must be scrupulously maintained, an occasional mild mercurial purge being administered. At the earliest signs of cardiac embarrassment some restriction in activity should be insisted upon and, when compensation seems threatened, absolute rest in bed must be enforced. The medicinal measures are at first limited to the vasodilators, the effect of the remedies being largely mechanical, dilating the capillaries, lowering peripheral resistance, and diminishing the work of the heart. To meet alarming symptoms a free catharsis is efficacious. Some preparation of mercury is to be preferred. To meet emergencies nitrite of amyl may be inhaled, but nitroglycerin is usually the drug of choice. Iodid of sodium and iodid of potassium, in 5- to 10-grain doses, given well-diluted one hour after meals, may be used. Heart tonics of the digitalis group should, of course, never be used during the stage of cardiac hypertrophy, being only admissible when there is indication of failing compensation. A vasodilator should be simultaneously administered in order to prevent the dangerous augmentation of the peripheral resistance.

#### THE TRANSMISSION OF SYSTOLIC MITRAL MURMURS, WITH SPECIAL REFERENCE TO THE NATURE OF THE SO-CALLED ANEMIC MURMURS

was the title of a paper by DR. HORACE B. ARNOLD of Boston.

He summarized his studies as follows: Mitral systolic murmurs may be heard not only at the mitral area at the apex and extending toward the axilla, but also at the mitral area in the back, along the left border of the heart, in the second left interspace, at the base, and at the "valvular" area. Anemic murmurs are not confined alone to the pulmonary area and second left interspace. They extend by varying gradations around the left border of the heart, to the apex, and to the mitral area in the back, thus gradually assuming the characteristics of a true mitral regurgitant murmur. The transmission to the

mitral area in the back may exist, whether the murmur is heard at the apex or not, and even in what appear in front to be typical anemic murmurs. We cannot find a dividing line between the so-called anemic murmur and the mitral murmurs. The presumption that these different gradations in the distribution of the murmurs all have a common origin is strengthened by finding these different gradations successively in the different stages of the same case. It is practically proved by finding all these gradations in healthy hearts which have been subjected to the same severe exhausting strain. Weakened muscular action of the heart exists in anemia as a result of poor nutrition. Weakened muscular action is an adequate cause for mitral insufficiency, whether dilatation exists or not.

DR. GEORGE W. WEBSTER of Chicago then read a paper, entitled

#### THE CAUSES AND DIFFERENTIAL DIAGNOSIS OF ACCIDENTAL HEART MURMURS.

Every theory in physical diagnosis should be the realization, not the violation, of a physical law. He argued that no single theory accounts for all accidental murmurs, and that it is probable that all accidental murmurs are, like those of organic disease, due to the production of "fluid veins." This may be due to temporary dilatation of the pulmonary artery, relative insufficiency of the tricuspid or the mitral valves, and possibly other causes. The diagnosis rests on: (1) The exclusion of organic disease as shown by (a) absence of a history of antecedent causal disease; (b) absence of the results of valvular defects as evidenced by hypertrophy and dilatation, or by broken or damaged compensation. (2) By (a) history of such disease or conditions as acute intoxications, chorea, the anemias, etc., with which these murmurs are frequently associated; (b) the characteristics of the murmur as shown by rhythm, point of maximum intensity, area of audibility, posture, exercise, etc.

He drew the following conclusions: (1) Accidental heart murmurs may occur when there is neither anemia nor fever, as in certain forms of intoxication. (2) Accentuation of the pulmonic second sound may occur in accidental heart murmurs. (3) An accidental murmur may be diastolic in rhythm. (4) The term "accidental" should be employed to designate all those cardiac murmurs which cannot after careful examination be clearly demonstrated to belong to the organic class, it being clearly understood that as our knowledge extends and increases the number of "functional" maladies gradually diminishes. The latter term is simply a cloak which covers up our lack of knowledge. True, the same may be said of the term "accidental," and yet there is this to be said in its favor: It commits us to no theory of causation, indicates no pathology, avoids a discussion of the question whether functional disturbances occur without pathological change, and, above all, it erects no barrier in the way of progress. (5) While I do not believe we are perfectly acquainted with all the physical conditions that can give origin to either cardiac or vascular murmurs, and while the error may be one of either observa-

tion or interpretation, I incline to the view that no single theory can be said to reasonably account for all accidental heart murmurs. I believe that there is a relative insufficiency of either the mitral or tricuspid valves, due to incomplete contraction of the heart, the latter due to degeneration, fatigue, or to the effects of toxic agents as in pyrexia, alcoholism, etc., and that under the circumstances the murmur may not vary in any of its essential characteristics of quality, pitch, and intensity or in point of maximum intensity and area of audibility from regurgitation due to organic disease at the same orifice. The vibrations accord with physical laws. Tricuspid regurgitation is probably of much more frequent occurrence than mitral. (6) The theory of Potain in regard to cardio-pulmonary murmurs seems a possible explanation of some of the accidental murmurs. (7) In all cases of organic disease the vibrations originate in the fluid blood, due to the formation of "fluid veins." The theory that the accidental murmurs originate in vibrations in the walls of the vessels or of the cones, and are not communicated to the moving column of fluid, and so not carried by it, does not seem quite reasonable, but might serve to explain the limited area of audibility of some of these murmurs. (8) The wide diversity of opinion in regard to rhythm, point of maximum intensity, and area of audibility would seem to indicate careful, accurate observations improperly interpreted, or else an attempt to explain all accidental murmurs by one theory. (9) In many cases, especially of apex systolic murmurs, or in those heard over the body of the heart, a correct diagnosis cannot always be made without awaiting the results of treatment.

DR. GEORGE DOCK of Ann Arbor, Mich., read a very interesting paper on

#### THE USE OF QUININ IN MALARIA.

In the tertian or quartan intermittent, or any combination or duplication of these, quinin should be given in the decline of the paroxysm if possible, or not later than the end of the apyrexia. The difference depends upon the time the patient is seen or the diagnosis made. The dose should be given at one time or in parts at short intervals, in such a form that absorption may be confidently expected. He has found it very satisfactory to give the full dose in the form of the hydrochlorate, in capsules, followed by 15 drops of dilute hydrochloric acid. In patients who have been unable to retain other preparations he had been successful in giving three 5-grain capsules half an hour apart, with a small dose of dilute hydrochloric acid after each, with directions to repeat in half an hour if any dose was vomited. The question of quinin in malarial hemoglobinuria must be settled by careful clinical observation and experiment, and statements regarding it must be given credit in proportion to the accuracy with which the observations are made. In the meantime quinin can be used cautiously, if parasites are present, giving the drug in the form most likely to be absorbed, in doses within the limit of safety, and stopping its administration as early as the microscope shows this to be proper. A temporary increase in the severity



of the symptoms should not alarm the physician. It is necessarily due to the drug. At the same time the specific is being given other methods of treatment must not be forgotten. The quinin is given to check the malaria, not for any particular symptom or complication.

DR. G. A. FACKLER of Cincinnati, Ohio, read a paper, entitled

#### THE UNSATISFACTORY RESULTS OF THE HYPODERMIC ADMINISTRATION OF QUININ IN THE TREATMENT OF MALARIA.

He offered the clinical facts elicited by a review of twenty cases, confirming the cursory previous observations made as to the unreliability of quinin administered hypodermically in malaria. A general résumé of these 20 cases furnished the following data: Three cases in which quinin hypodermically was successful; 7 cases in which quinin by mouth was successful; 10 cases in which quinin by mouth was successful after hypodermic injection had failed. A total of 17 cases in which quinin by mouth was successful as a curative measure in the treatment of malaria. In only 3 out of 13 cases in which the remedy introduced subcutaneously was an abeyance of symptoms noted.

#### SYMPOSIUM ON PNEUMONIA.

DR. EDWARD F. WELLS of Chicago read the first paper, entitled

#### THE PNEUMONIA QUESTION; SOME INTERESTING CONSIDERATIONS.

In pneumonia the treatment should resolve itself into reasonable prophylaxis; in making the patient comfortable; in preventing excessive formation of toxins, in neutralizing them, in encouraging their elimination and increasing the resisting powers of the system against their action; in preventing, or managing properly, the complications which may arise. Bleeding in this disease as a remedial resource he did not believe had any substitute. Venesection should not be performed, as a rule, in the very young or the aged, the weak or anemic, nor in cases where the evidences of obstruction of the pulmonary circulation, or of increasing toxemia is present. Simultaneous with the venesection, or immediately after a solution, in distilled water, of chlorid of sodium, 7 per cent., chlorid of potassium, 23 per cent., and chlorid of calcium, .03 per cent., is injected subcutaneously in quantities approximating that of the amount of blood withdrawn. The speaker believed that the immediate future would demonstrate pneumonia to be, certainly, a preventable and, largely, a curable disease.

DR. ROBERT H. BABCOCK of Chicago followed with a paper, entitled

#### PNEUMONIA IN THE AGED.

He considered pneumonia in the aged as being more frequently lobar than catarrhal. Its symptomatology is often unlike the typical form, and may be said to constitute a form of its own. The physical signs are often obscure, and the diagnosis often depends upon history and the symptoms. He emphasized four points, *vis.*: (1) It was his conviction that aged pneumonic patients bear

well and require large doses of strychnin. (2) Stimulants, as alcohol in small or moderate doses, and ammonia in frequently repeated doses, are usually highly beneficial. (3) As little medicine as will meet the indications should be given for fear of upsetting the stomach, and thereby destroying what few chances the patients have at the best. (4) Because of the tendency to renal insufficiency the nourishment should be largely fluid, and nothing is so suitable as milk and properly prepared beef-juice.

DR. H. A. HARE of Philadelphia next read a paper, entitled

#### THE TREATMENT OF PNEUMONIA.

When called to care for a patient through an attack of illness, especially pneumonia, the physician should be a watchman all the time, and a therapist only when necessity arises. In all infectious diseases, especially croupous pneumonia, the patients may be divided into three classes: (1) those who are so mildly ill that all they need is good care and little or no active treatment; (2) those who are so ill that nothing can be done which will bring about a cure; (3) those cases which lie between the two, and which are capable of cure but only when the individual is aided by the most skilful treatment. As to the use of the abortive treatment by the use of bleeding or circulatory sedatives, such as aconite and veratrum viride it is evident that few patients can receive this treatment, because only a few patients have a sufficiently bounding pulse to justify its use, and few are seen early enough to be benefited by it. When consolidation has taken place one should attempt to prevent the hyperpyrexia by cold sponging with friction, and the use of the ice-bag over the heart and to the head. Ice to the precordium slows the heart and protects it perhaps from the ill effects of the fever. Ice to the head diminishes the pain and keeps the mind clear and controls the temperature. The antipyretic drugs are of use in that they allay nervousness, and not because they reduce the fever. If any one is tempted to give a patient stimulants, and before doing so feels his own pulse he will sometimes be surprised to find that his own is the weaker. Digitalis often fails as a stimulant because it loses much of its regulating power over the heart in the presence of high fever. It acts better when the temperature is reduced by hydrotherapy. If the pulse be gaseous and relaxed belladonna in 5 to 10 minim doses, every four or eight hours, may be useful. Strychnin goads the system to increased endeavor, and is especially of use when the patient seems to be sinking into the slough of death. The value of nitroglycerin seems to be in direct proportion to the degree of arterial tension. The value of oxygen is problematical. This disease cannot be treated by any routine method.

In the discussion of these papers DR. J. H. MUSSER of Philadelphia said that he felt sure that pneumonia has been taken out of the category of lung diseases and now is considered as belonging to the infectious diseases. From its clinical course pneumonia is considered a systemic disease and no longer a local one. There are many cases which begin with chills, fever, vomiting, and abdominal pain which is localized about the seat of the appendix, and sometimes it has been said that the patient

was suffering from appendicitis. In a great majority of the cases pain located in the upper part of the abdomen is misleading. One must not be misled by the severity of the symptoms. Too much stress cannot be laid upon the occurrence of peritonitis during the course of this disease. It is too often overlooked on account of the insidious development of the complication. Regarding the treatment he advised cupping freely and continuously; cup in the morning and evening and the next day. Cold compresses should be used; they should be wrung out of ice-water. When the temperature is not above 102° F., and when there is no general infection or marked evidence of toxemia, it is probably not necessary to use these applications. The effect of this is upon the circulation and the nervous system. He was convinced that toxic symptoms are controlled by the use of cold. He never gives aconite or veratrum viride and never finds it necessary to use cardiac sedatives. Large amounts of water should be given. He has used strychnin and nitroglycerin but has had no experience with digitalis in the treatment of pneumonia.

DR. STOCKTON of Buffalo confirmed the statement made, that leucemia does not always mean that a fatal issue is to be expected. In one case he noted there were no more than 6000 leucocytes counted and the patient recovered. This case was an extraordinary one in that there was a relapse—the only case of relapse the speaker ever saw. It was one of lobar pneumonia and the child sustained three relapses. The late Dr. Flint stated that this disease was one in which there is no relapse. The speaker had stated to his class that patients may die of lobar pneumonia and yet not have any inflammation of the lungs. He had seen two patients approaching death in whom no pneumonia could be made out; one was a case of the lobar form but showed no evidences of it until the sixth day, and the patient died on the seventh.

Regarding the treatment of pneumonia some cases he had seen were cases of toxemia, and one man was so discolored that he appeared as one bitten by a serpent; there was vasomotor paresis and evidences of the most serious process. Death took place in the beginning of the disease, and it was practically one from toxemia. He wished to emphasize the fact that pneumonia is a toxic disease and the treatment should be directed toward opposing the toxic condition. Large doses of alcohol he deemed of more importance than any other stimulant. Strychnin, in doses of  $\frac{1}{16}$ ,  $\frac{1}{8}$ , or  $\frac{1}{4}$  of a grain, given hypodermically, and until there is no longer any vasomotor paresis, he thought would rescue patients from death when attempts by any other means would prove futile.

DR. GEORGE DOCK said that he wished to voice the opinion already expressed regarding the value of strychnin in the later stages of pneumonia when given judiciously. This also applies to the use of alcohol. He spoke highly of the use of ice-bags in cases of frank croupous pneumonia. Formerly he treated these cases as he did typhoid fever, *i. e.*, with the cold bath, but this is difficult to carry out although the method is valuable. Two years ago he began to use ice-bags and his results have been good.

DR. A. M. HOLMES of Denver spoke of the influence of altitude in these cases. Denver is one mile above the sea level, and the celebrated Cripple-Creek region is higher. At this place there is a great and rapid increase in the population and a great deal of exposure and much pneumonia in consequence. The mortality-rate is very high, and it is now customary to send the patients to a lower altitude as soon as a diagnosis of pneumonia can be made.

DR. J. M. ANDERS of Philadelphia said it had recently been pointed out that while the mortality-rate in typhoid fever, diphtheria, and other acute infectious diseases has been decreasing, that of pneumonia, unfortunately, has been increasing during recent years. All bacteriologists and clinicians agree that pneumonia is due to various toxins. The pneumococcus is present in about ninety per cent. of all cases, and the pneumococcus alone in about seventy-five per cent. of the cases. In many instances it is a mixed infection. It is a well-known fact that these micro-organisms have a direct bearing upon the course and prognosis of the disease, also upon the treatment. One cannot expect to obtain good results from pneumococcic serum when there is a streptococcus infection. He had found a moderate leucocytosis during the pseudocrisis which occurs about the fifth day of the disease. He had observed that in two cases it occurred in the streptococcus infection rather than in the pneumococcus infection. During the past winter he saw a case of influenza in which pneumonia developed as a complication. The sputum in this young man was examined, and he failed to find any recognized pathogenic organism, so it probably was a pneumonia due to an organism other than the pneumococcus or streptococcus.

#### SECTION ON DISEASES OF CHILDREN.

##### SECOND DAY—JUNE 7TH.

DR. E. E. MAYER of Pittsburg, Pa., read a paper, entitled

##### HYSTERIA IN CHILDREN.

Hysteria is not so uncommon as formerly thought; the Children's Crusades, the dancing manias of the middle ages, and the story of the Pied Piper of Hamelin, show that it has always existed. Anglo-Saxons are not so free from it as has been supposed, and their comparative freedom from it is due to our better methods of training than to any special absence of heredity. The disease is psychical, but is modified by the physical conditions. One authority has said that he has never seen hysteria without chlorosis. This psychic element is most important. Imitation of neurotic conditions in parents is of etiologic import. The diagnosis of hysteria in children is not easy. The ordinary stigmata of the disease, the anesthetic patches of skin and of fauces, the concentric narrowing of visual fields, are not usually present. The affection often runs a non-symptomatic course. The variability of symptoms, however, and the suggestibility of the patients makes the diagnosis comparatively easy after study of the case. In the so-called hysterical palsies the gait is jerky, not hesitating; it is not weakness

but over-action of muscle that is noted on movement. Patrick has shown that the limits of the anesthetic and hyperesthetic varies almost from minute to minute. The treatment of hysteria in children is moral. Underlying physical conditions must be treated in the usual way, but parents must be impressed with a proper sense of responsibility and made to train their children so that their emotional side does not run away with them, but no corporal punishment must be employed. The prognosis is better than in hysteria in older people, but great firmness is necessary in not yielding to the child in the slightest degree. For this reason the specialist often succeeds where the family physician fails.

DR. SLAGLE of Minneapolis said that ideopathic hysteria, *i.e.*, hysteria without a physico-pathological factor is not common in children. Secondary hysteria, especially in members of neurotic families, is quite common. The treatment, of course, is to rule the exaggerated nervous symptoms, but primarily to treat the underlying condition of anemia, indigestion, constipation, and the like. Look for the physical cause; it is not easy to find. Dr. Slagle has seen hysteria develop in children while he was administering strychnin even in minute doses.

DR. GARRISON said that she has seen hysteria develop in nervous children while taking strychnin as a tonic.

DR. ROSA ENGELMAN of Chicago said that hysteria in children, because of its difference from hysteria in the adult, is difficult of diagnosis. Some of the manifestations of it are most surprising. She has a case under observation in which polyuria is the prominent symptom. At one time, for days, thirty pints of urine were passed, and the polydipsia kept the child from sleep. That is over a year ago, yet the child is still passing six pints of urine daily. There is no sugar and no other abnormal constituent. The malarial organism was found in the blood, and the malarial toxemia was concluded to be the pathological basis on which the hysteria rested.

DR. C. G. SLAGLE of Minneapolis read a paper, entitled

#### INFANTILE CONVULSIONS; THEIR CAUSE, NATURE, AND MANAGEMENT.

He said that a neurotic constitution nearly always precedes convulsions, and that there is such a thing as a convulsive temperament which is inherited. Nearly always irritation of the digestive tract is the cause. It must be borne in mind, however, that mothers' milk may prove the irritant more than once. He has seen convulsions succeed applications to the breast within an hour under circumstances that excluded other conditions. For treatment during the convulsion, if severe, an anesthetic should be used, then an emetic, and after that a calomel purge.

DR. COTTON of Chicago said in discussion that he reported last year at Denver some fifty cases in which coitus, excessive or prolonged, had caused deterioration of the mother's milk, producing irritation of the gastrointestinal tract in her nursing. He has now had some seventy cases in which he believes that this cause has been at work in making the breast-milk noxious to children. This certainly deserves careful investigation.

DR. EDWIN ROSENTHAL of Philadelphia read a paper, entitled

#### TREATMENT OF SEPTIC CONDITIONS IN CHILDREN.

Dr. Rosenthal recommends local applications as preventives of general infection, especially the use of antiseptic poultices and of 30-per-cent. ichthyol ointment, with lanolin as an excipient, when the first sign of an inflammatory process is seen. For well-established infection antistreptococcic serum is very effective and produces marvelous results.

DR. DILLON BROWN of New York said that antistreptococcic serum cannot be effective in general septic conditions because we have not, in these cases, simple toxemia, with toxins in the blood, but the bacteria themselves are present in the blood and against them the antitoxin can do nothing as it is not antiseptic.

DR. BLECH of Chicago said that another reason why antistreptococcic serum is not effective is that a mixed infection frequently is present besides the streptococcus, the various forms of streptococci, and other pyogenic micro-organisms. Against their toxins the streptococcus antitoxin has no effect.

DR. ROSA ENGELMAN of Chicago said that the antistreptococcus serum is necessarily made from one form of streptococcus while a number of forms exist, and it is not easy to differentiate which special variety is at work. The different forms are variously virulent too, so that too much assurance of success cannot be founded on the use of any special serum.

DR. COTTON of Chicago said that antistreptococcic serum produces marvelous results in certain cases, though it utterly fails in others. Our clear duty in the matter is to use the remedy in every case where streptococcic infection is suspected.

DR. GUSTAVUS M. BLECH of Chicago read a paper, entitled

#### COMPARATIVE THERAPEUTIC VALUE OF RECENT ANTISEPTICS IN PEDIATRIC PRACTICE.

He considers that four forms of antiseptics are feasible, for the urinary tract, for the respiratory tract, for the intestinal tract, and general antiseptics. For the urinary tract he has found urotropin most useful and it has none of the irritating properties of some urinary antiseptics, and besides its use does not interfere with local treatment of the bladder.

Guaiacol carbonate is an excellent respiratory antiseptic for use in various forms of bronchitis. It does no good in pulmonary consumption, however, for which he considered Kleb's tuberculocidin to be practically a specific in the first and second stages.

As an intestinal antiseptic eudoxin has proven the best in his hands. It is split up in the stomach into bismuth suboxid and nosophen, and the nosophen is an excellent practical intestinal antiseptic. As a general antiseptic compounds of iodine and silver are available. Of these, iodine, that God-given drug, as some one has called it, is the best. Two of the recent forms in which it is employed, antiosin and nosophen, do not free nascent iodine when in contact with the tissues and hence



are good unirritating antiseptics, locally or internally, never producing symptoms of iodine intoxication.

DR. COTTON of Chicago has also used eudoxin, and has been pleased with his results, and expects to use it even more freely in the future.

DR. SLAGLE of Minneapolis considers that there are but three intestinal antiseptics that are effective—calomel, sulphur, and sulphite of soda.

DR. ROSA ENGELMAN of Chicago read a paper, entitled

#### MEMBRANOUS TONSILLITIS OF INFLUENZA AND ITS BACTERIOLOGICAL LESSONS.

It has been known for some time that in addition to the diphtheria bacillus other micro-organisms, notably the streptococcus, can produce a membrane in the throat. The pseudo-diphtheria bacillus can very probably also produce a membranous deposit. It was not until the investigations of the Chicago Board of Health last winter that it was known that there is a diphtheritic form of influenza. In a number of cases where there was a membranous pharyngitis, but the clinical symptoms, if the disease were to be considered diphtheria, were anomalous, the influenza bacillus of Canon and Pfeiffer was found in the lesions.

This emphasizes the necessity for bacteriological diagnosis of all throat conditions. Incidentally it may be remarked that diphtheria and influenza may occur simultaneously, or diphtheria may begin in a mixed infection. Cultures from throats of patients in Chicago last winter that at the eighth hour were surely diphtheria bacilli, at the twenty-fourth hour were completely overgrown by the diplococcus lanceolatus. It is necessary to follow cultures from hour to hour in order to be sure what micro-organisms are present.

During epidemics of influenza a number of suspicious cases of diphtheria will prove to be grip. It is true that there is a pseudo-influenza bacillus described by Pfeiffer which also produces a pseudo membrane in the throat. To distinguish this the most careful bacteriologic diagnosis is necessary.

DR. COTTON of Chicago said that for the practitioner when there is doubt as to the nature of the process in the throat, it is advisable to treat it as if it were diphtheria. Diphtheria antitoxin can do no harm, and it will always do good if there is any diphtheria present.

DR. ROSENTHAL of Philadelphia thought that the influenzal membranous tonsillitis can be distinguished macroscopically from that of true diphtheria by the fact that it has a more granular look, and is less evenly distributed over the surface of the tonsils.

#### SECTION ON NEUROLOGY AND MEDICAL JURISPRUDENCE.

##### FIRST DAY—JUNE 6TH.

The Chairman, DR. FREDERICK PETERSON of New York City, presented the annual address. He spoke of the impossibility of touching upon all the recent advances in neurology and psychiatry. In one subject alone, the cytology of the nerve-cell, it would be necessary to examine 400 different contributions, books, and journal articles

by 280 authors in order to write an exhaustive critique. He presented a bibliography of neurology and psychiatry and allied subjects for the year 1898 and the early part of the year 1899, limited to books of more than fifty pages, including 201 works in all. He referred especially to "Die Psychiatrische Klinik zu Giessen," published in Berlin during this year, describing a psychopathic hospital in a German city on the community plan, containing laboratories for pathologic, microscopic, chemical, photographic, and psychophysical work, besides a mechanical workshop, clinical auditorium, library, and polyclinic or dispensary for out-of-door patients.

DR. JOHN PUNTON of Kansas City, Mo., presented a paper on

#### THE RELATIVE CURABILITY OF NERVOUS DISEASES AND THEIR THERAPEUTIC INDICATIONS.

The relative curability of any given nervous affection is based upon the accuracy of its early diagnosis. To this end there should be an accurate scientific classification of diseases of the nervous system, dividing them into two great classes, organic and functional. In the cases covered by the first class the nervous elements are not, as a rule, primarily affected, but are so secondarily. As to the second class, the chief lesions affecting the nervous apparatus can be arranged under six groups, namely, vascular, inflammatory, degenerative, toxic states, congenital malformations, and functional or unclassified lesions. In the last group are included hysteria, chorea, neurasthenia, paralysis, catalepsy, epilepsy, etc., and by reason of the purely subjective character of their clinical phenomena, their diagnosis is often very obscure and misleading. The statistics and authorities as to epilepsy, for example, are utterly at variance. It is highly desirable that a text-book authorized by this or some competent association be furnished the medical profession in which is set forth reliable data based on actual facts as demonstrated by practical clinical observation and experience in order to prevent the fraud and deception now practised on the helpless neurotic incurable by those claiming to have a "sure cure for fits."

DR. T. D. CROTHERS of Hartford, Conn., read a paper on

#### THE MEDICAL SIDE OF CRIMINAL MORPHOMANIA, which was followed by one on

#### A RATIONAL TREATMENT OF CHRONIC MORPHINISM, by DR. A. J. PESSEY of Cleveland, Ohio.

Dr. Crothers spoke of the physiological action of opium and its alkaloids in causing "palsy of the higher psychological centers," temporarily destroying the former personality of the patient and causing him to act from a different point of view. He related a number of instances in which the morphin-taker had been guilty of various fraudulent and secretive crimes, displaying a cunning, judgment, and apparent honesty in avoiding discovery, so long as not deprived of the drug, but breaking down completely and showing marked mental aberration when the morphin was taken away. These cases included arson, dishonesty, speculation, forgery, false impersonation, and

all sorts of swindling. Morphin criminals are regarded as most dangerous by the police, having full control of their nerves and acting a double part so clearly as to disarm suspicion. Cases of will mania, delusions of sudden death, etc., are among the mental results of the use of morphin. A new personality appears; some psychic trance state, in which great mental clearness, self-possession and cunning, with unusual frankness and candor are the prominent symptoms. There should be an exact study of the criminal side of morphin cases.

Dr. Pressy's treatment of morphinism is by the gradual withdrawal of morphin until it is only given in infinitesimal doses, the patient being unaware that the amount is being reduced. The patient is usually taking more than is necessary to produce the desired results, and the dose can usually be markedly reduced at the start. The patient is kept on as small a quantity as will make him comparatively comfortable, without making his dose so small as to keep him in misery until the next hour for morphin. The doses are given four times a day just previous to meals and bed-time.

DR. CHARLES H. HUGHES of St. Louis said that as to treatment, the safe rule is to endeavor to gage the dose according to the capacity of the patient for reduction.

DR. DANIEL R. BROWER of Chicago said that morphin, very much more than alcohol, disturbs, deranges, or alters the personality. He thought that morphin patients can be treated very successfully in hospitals.

DR. E. S. PETTYJOHN said that under the influence of morphin doctors of divinity are just as prone to tell what is not true as anyone else. He advocated continuing the small doses for a somewhat longer time, cutting them down to  $\frac{1}{16}$  or  $\frac{1}{32}$  of a grain.

DR. HAMLIN of Tennessee agreed with Dr. Pettyjohn and said that the dose should be even cut down at the last to  $\frac{1}{32}$  or  $\frac{1}{64}$  of a grain. He related the case of an intelligent, well-bred Southern woman, who secretly contracted the morphin habit and, being accidentally deprived of the drug, one night went entirely mad and was found wandering on the streets of the city, attempting to sell her virtue to a druggist for a dose of morphin.

DR. TUCKERMAN of Cleveland suggested that there are many cases of morphinism which must be treated by the general practitioner, as it is impossible for the individuals to go to a hospital. He related the case of an opium fiend in a private family who was treated by a mixture of opium and thoroughwort, the proportion of the former being gradually reduced.

DR. A. E. STERNE advocated the immediate withdrawal of the drug, in the absence of any contraindications, the unpleasant symptoms being obviated by the use of bicarbonate of soda to relieve the acidulous condition of the system.

DR. WILLIAM N. BULLARD of Boston, Mass., presented a paper on

#### RELIEF OF INTRACRANIAL PRESSURE IN NON-TRAUMATIC CASES WITHOUT LOCALIZING SYMPTOMS.

Trephining is often advisable in cases of increased intracranial pressure when the cause of such increase is uncertain. A married woman, aged thirty-eight years, the

daughter of a nervous invalid, applied for operation to relieve the intolerable condition of her head. For years she had been subject to a sensation as if the brain were being compressed. There was no evidence of any affection of the optic nerve. The cranium was trephined on the right just in front of the coronal suture and about an inch below the sagittal suture, and the button removed. The dura was very tense, bulged, did not pulsate; the cranial opening was enlarged, and the dura cut. The brain, which was very blue, protruded an inch or more beyond the cranial opening, suggesting very marked intracranial pressure. The protruding portion of the brain, which was 2 x 3 inches in length and breadth and an inch or more in thickness was cut off and the wound closed without stitching the dura. The patient made an uninterrupted recovery, and since the operation has had no recurrence of the symptoms. A year after the operation she became the mother of a healthy child, her first, though she had been married for more than ten years.

Dr. Bullard's conclusions were as follows: (1) There exist certain non-traumatic cases of increased intracranial pressure of unknown or doubtful origin. (2) Whenever an excess of intracranial pressure exists such as to cause serious symptoms, the question of its relief by opening the cranium and cutting the dura should always be considered. (3) In certain non-traumatic cases of excessive intracranial pressure more or less permanent relief, or even cure, may be obtained by proper surgical interference. (4) In cases of acute severe optic neuritis of unknown origin the question of opening the cranium and relieving the excessive intracranial pressure should be considered.

DR. W. A. JONES of Minneapolis, Minn., spoke of a case of injury followed by mild optic neuritis, mild hemiparesis and hemianesthesia, which, with a great deal of headache, seemed to demonstrate the probability of an acute pressure either from abscess, tumor, or something of that sort. On trephining nothing but a very small quantity of fluid was found, but there was a perfect recovery, and all the subjective and objective symptoms disappeared.

DR. TUCKERMAN of Cleveland related an instance of a young woman with symptoms similar to those of Dr. Bullard's patient, who was relieved by exploratory trephining. The brain did not bulge; the dura was not opened, but was adherent to the skull very firmly under the site of an old injury, and the skull was somewhat thickened. An opening of about an inch and a half was made, and a gauze drain inserted. There was a free seepage of cerebral fluid for three or four days. The headache, the sleepy symptoms and the convulsions from which the child suffered disappeared very promptly.

DR. FISHER said he understood from Dr. Bullard that the button was not replaced, and thought that was the reasonable course to pursue. Cutting away portions of the brain could not, of course, be indiscriminately done.

DR. TOMLINSON thought that if there is a general pressure, giving rise to generalized symptoms, there is just as obvious a reason for the operation as in tumor, abscess, or local accumulation of fluid, the object in each case being to relieve the pressure.

DR. BULLARD, in closing the discussion, said that curiously enough in his case there was no excess of fluid found underneath the dura, nor did the specimen of the brain show anything peculiar under microscopical examination. There were none of the symptoms of grand hysteria in the case, nor was there any shock following the operation.

#### SECOND DAY—JUNE 7TH.

The entire day was given up to a

#### SYMPOSIUM ON HEADACHE.

The following papers were read:

"The Diagnostic Importance of Headaches," by DR. FISHER. "The Headache of Gastro-Intestinal Disorders," by DR. FRANK BILLINGS of Chicago. "Headache Due to Affections of the Eye," by DR. SAMUEL D. RISLEY of Philadelphia. "Migraine," by DR. SAMUEL J. WALKER of Chicago. "The Relation of Uric Acid to Migraine," by DR. JOHN A. LICHTY of Clifton Springs, New York. "The Mental Element in the Treatment of Headache," by DR. PHILIP ZENNER of Cincinnati.

Dr. Fisher's paper dealt with the distinction between so-called continuous or constant headache and the paroxysmal headache, the former being present in Bright's disease, nephritis, and arterial disease. Of course even in the cases of continuous headache there are occasional exacerbations.

Dr. Billings maintained that gastro-intestinal disturbance is a very common cause of headache. The treatment is by the application of the laws of hygiene, modified to suit the individual case; a selected diet for each individual, the free use of water as a diluent, and recreation in the form of physical exercise or physical rest commensurate with the mental activity or physical tire of the individual. These he advocated in connection with the correcting of irregular habits of sleep, of time of taking food and of exercise, the withdrawal of tobacco, tea, coffee and alcoholic drinks, lavaging the stomach when necessary, and overcoming the constipation by hygienic measures, if possible without drugs. In conditions of malnutrition and anemia, restorative tonics and an abundant simple diet are indicated.

Dr. Risley's conclusions were as follows:

1. Abnormalities of the ocular apparatus are in a large group of patients the sole and sufficient cause of headache.

2. These abnormalities of vision may be the unsuspected cause, and therefore, the absence of symptoms obviously referable to the eyes does not exclude them as an etiologic factor in headache, insomnia, vertigo, petit chorea in children and certain stomach derangements.

3. The recent or sudden development of symptoms, e.g., after attacks of severe illness, as typhoid fever, the exanthemata, etc., or in association with more or less acute exacerbations of some general dyscrasia, is not sufficient evidence against ocular participation in causing the symptoms.

4. The participation of the eyes as an etiological factor in headache can be positively excluded only in the absence of ocular diseases or after the most painstaking cor-

rection of any existing error of refraction or abnormality of binocular balance.

5. For the relief of reflex symptoms, accurate corrections are essential, and these can be secured only by the more or less prolonged use of a strong cycloplegic.

6. Immediate relief by these corrections in a large group of patients is not to be expected since the pain is frequently due to associated pathologic conditions of the fundus oculi and these require time for cure.

Dr. Walker of Chicago in his discussion of migraine, detailed a number of cases coming under his own observation and seen in the practice of Dr. Hugh T. Patrick, and noted an apparent relation, which he did not attempt to define, between migraine and epilepsy.

Dr. Lichty of Clifton Springs, in speaking of migraine from the uric-acid standpoint, presented studies of the uric-acid conditions in three cases of migraine. Both uric acid and urea were diminished during the height of the headache, but their relation was not disturbed. After the headache, the urea increased to about what it was between the attacks, while the uric acid increased much more, thus changing the former ratio. Dr. Lichty concluded that the increase of uric acid which is associated with migraine is the result, and not the cause, of the headache. He referred to Gowers' statement that "When all has been said that can be, mystery still envelops the mechanism of migraine."

Dr. Philip Zenner, in his article on "The Mental Element in the Treatment of Headache," referred to cases in which patients suffering from brain tumors were compelled to undergo gynecological operations, which were followed by complete relief from headache. This was attributable to the mental impressions produced by the operations.

The discussion of these papers was opened by DR. NORMAN BRIDGE of Los Angeles, Cal., who said he did not believe that there is any relation between migraine and uric-acid diathesis. He suggested that in order to explain Dr. Zenner's cases it was not entirely necessary to assume that the surgical operations relieved the headaches by mental impression, as we know that surgical operation does interrupt various nervous phenomena, owing to the chloroform, the wound, the shock, etc.

DR. CHURCH of Chicago was of the opinion that there is a certain relation between migraine and epilepsy.

DR. HUGHES of St. Louis did not believe that migraine and epilepsy are at all associated diseases.

DR. JOSEPH V. KOFRON of Cleveland, Ohio, related cases in which the migraine had been cured in children by relieving a diseased condition of their tonsils.

DR. A. E. STERNE believed that in almost every case the cause could be discovered and removed, but even after its removal there is a secondary state following upon the chronic. If the difficulty is dilatation of the blood-vessels, the stretching may have gone to such an extent that the vital rubber has lost its contractility.

DR. F. SAVARY PEARCE of Philadelphia thought there is no doubt about the hereditary element, to which is superadded the exciting cause, whatever that may be.

DR. EVANS thought that the medical profession to-



day is in a state of extreme uncertainty as to the causal factors in the production of migraine. In his opinion there is no relation between migraine and epilepsy. There being so many cases of each under observation, it is only to be expected that patients should occasionally be found who have suffered from both.

DR. HUGH T. PATRICK of Chicago agreed with Dr. Walker as to the likelihood of some relation between migraine and epilepsy. He pronounced a warning against accepting the statements made by Haig in his book, as thus far they are not borne out by facts.

The report of the Nominating Committee was unanimously adopted, and the following officers elected for the ensuing year: Chairman, Dr. Hugh T. Patrick of Chicago; secretary, Dr. F. Savary Pearce of Philadelphia.

A vote of thanks was extended to those members who came from other sections to participate in the symposium.

#### SECTION ON OPHTHALMOLOGY.

##### FIRST DAY—JUNE 6TH.

THE first day's session opened with probably the largest attendance in the history of the Section, all portions of the country being represented.

The address of the Chairman, DR. CASEY A. WOOD of Chicago, was concerned chiefly with the rapidly increasing number of papers which are yearly offered to the Section and he discussed the various ways of dealing with the problem.

Of the papers presented at this first meeting but two elicited much discussion. DR. H. MOULTON of Fort Smith, Ark., reported "A Case of Quinin Blindness in a Child Aged Three Years," and while there was nothing unique in the case save the age of the patient, which with one exception is the youngest on record, it excited an animated discussion in which part was taken by many until the chairman was obliged to postpone further comment until the morrow.

The paper by DR. C. H. WILLIAMS on "The Examination of the Vision and Color-sense of Railway Employees" also elicited an animated discussion, which was of greater interest than the paper itself.

Among the various opinions expressed was that of DR. GIFFORD of Omaha, who urged the use of the ophthalmoscope and an examination of the lids to detect possible exciting causes of corneal irritation. DR. REYNOLDS of Louisville regarded the color-test as outlined by the writer as insufficient and advised its being made in both a light and darkened room. DR. ALLPORT of Chicago believed that the examination of railway employees should be made by an oculist and not by a lay servant of the company. DR. RANDALL of Philadelphia commended the system in vogue on the Pennsylvania Railroad, of submitting the result of the examination to a jury of fellow-workmen, and DR. JACKSON of Denver urged the necessity of such tests that would disclose the presence of scotomata.

After the appointment of a nominating committee the Section adjourned. The Section dinner was served at the Columbus Club and more than fifty sat down to the board.

## REVIEWS.

GEBURTSHUELFLICHE TASCHEN-PHANTOME. (OBSTETRIC POCKET PHANTOMS.) By DR. K. SHIBATA. Fourth edition. Munich: J. F. Lehmann, 1898.

THE fourth edition of this little work is a good indication of its usefulness. For the student who has difficulty in learning the obstetric positions and the mechanism of labor in various presentations, the book has a distinct value. The miniature fetuses and pelvis enable him to study the mechanism correctly and as often as he chooses.

PRACTICAL MATERIA MEDICA FOR NURSES. By EMILY A. M. STONEY, Late Superintendent of Training School for Nurses, Carney Hospital, South Boston, Mass. Philadelphia: W. B. Saunders, 1899.

WE have always believed that our trained nurses were compelled to learn too much that is theoretical to the enforced exclusion of much that is practical. It is sometimes a serious thing to be obliged to employ a nurse who knows all about gelsemium but who does not know how to lift a patient from the right to the left side of the bed. There is some justification for making nurses learn something of the armamentarium they daily use; but there is no sense in compelling them to become half-fledged medical students in the attempt. If all nurses were made to know thoroughly the contents of the book before us, they would be good students of *materia medica*, no doubt. As long as the present system of instruction prevails among training-schools, such books as Miss Stoney's will have a good reason for existence. It is thorough, complete, and concise, and contains much that will be of benefit to an intelligent nurse who is interested in her work.

## THERAPEUTIC HINTS.

*Care of a Young Child's Teeth.*—Beginning at the age of two years, the teeth should be rubbed every morning with a cotton tampon wet with the following dentifrice:

R	Thymol	3 iss
	Ac. benzoici	gr. lxxx
	Ol. menth. piper.	m. xl
	Ol. anisi	m. xxx
	Tinct. coccionellæ	3 iss
	Spiritus (80 per cent.)	3 viii.

M. Sig. Add enough to a glass of water to make the water cloudy.—*de la Carrière.*

*Formula for Oil of Wintergreen When Given in Rheumatism.*—

R	Ol. gaultheriæ	3 iv
	Spiritus	
	Syr. simplicis	3 iv

M. Sig. One teaspoonful in vichy three times a day.

*Suppositories for Infantile Dysentery.*—

R	Aluminii	3 v
	Plumbi acetatis	gr. lxxv
	Ol. theobrom.	3 v
	Melted wax	gtt. xx.

M. Ft. suppos. No. X. Sig. Insert one suppository every three or four hours.—*Guida.*